Contributions to South American Archeology

Volume II

IRVING PRESS
NEW YORK

Contributions to South American Archeology

THE GEORGE G. HEYE EXPEDITION

The Antiquities of Manabi, Ecuador

Final Report

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NEW YORK

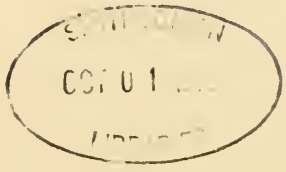
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PREFACE

In this second and final report are described the results of the second and third expeditions, during the summers of 1907 and 1908, to the province of Manabi. We here take the opportunity of acknowledging our indebtedness to the many friends in Ecuador whose kindness and interest in our work have contributed largely to the success of the expedition. But for the friendship and continued co-operation of Sr. Don Antonio Segovia, the owner of the hacienda of La Sierra, in the Cerro de Hojas, we could not have carried on our excavations in the hills. The members of the expeditions will always remember the kindness and hospitality of Don Antonio and his estimable señora. To Dr. Metalli, the vicar of the Catholic Church in Porto Viejo, the author extends his thanks for courtesies, and interest in the work. We cannot fail to mention the Very Reverend Federico Gonzalez Suarez, Archbishop of Quito, whose advice and suggestions were of great value, and who, by his publications, has contributed, above all others, to the archeology of his country. On the second expedition, the notes and photographs of the excavations at Cerro Jaboncillo were taken by Mr. Pepper, and the section relating to the same is from Mr. Pepper's notes. The map which accompanies our work is based upon the Wolf map and the charts published by the British Hydrographic Office of the Admiralty. We are under obligations to Captain Mitchell of the Pacific Steam Navigation Company for these charts, with certain corrections. From our own observations we have been able to add considerably to existing maps, and we have made some changes in the shore line. Finally, we wish to acknowledge the careful drawings of Mr. Rudolf Weber and his assistant, Mr. William Baake, and the excellent gelatine illustrations furnished by Mr. E. O. Cockayne.



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The Antiquities of Manabi, Ecuador

INTRODUCTION TO FINAL REPORT

The archeological investigations begun on the coast of Ecuador in 1906, by the George G. Heye Expedition, of which a preliminary report has been published, were resumed during the summer of 1907. The writer, accompanied by George H. Pepper and Foster H. Saville, arrived in Manabi about the middle of June, and the Expedition remained there until the first of October. The work was mainly directed toward a systematic exploration of the hills known as Cerro Jaboncillo and Cerro de Hojas. A large number of corrales or house-sites were cleared of the dense tropical jungle, and extensive excavations were made in these house-sites as well as in a number of mounds. Through our excavations, a comprehensive collection illustrating the ceramic art of this section of Manabi, a number of new forms of sculpture, notably bas-reliefs, and several new types of seats, were obtained. The notes of the work of excavation will be found in this monograph under the heading, Excavations at Cerro Jaboncillo.

After the work of excavation was completed, Mr. Pepper and Mr. F. H. Saville made a trip to the hills south of Monte Cristi, and I left the Manabi field and proceeded to Esmeraldas. On this expedition I was assisted by Louis W. Niendorff, who had been engaged in investigating the ancient remains on the Island of Puna in the Gulf of Guayaquil, and the region in the vicinity of Cape Santa Elena. We explored the coast of Esmeraldas from Cojimies, the northernmost town of Manabi, northward as far as Limones, not far distant from the frontier of Colombia. Mr. Niendorff remained in this field until the first of November. We carried on excavations in several places; and the extensive collections from thirty-five different localities on the Esmeraldas coast — which we secured by purchase, gift, or excavation — will give a fairly adequate idea of the ancient culture of this region. This material, augmented by small collections obtained by Mr. D. C.

Stapleton, will form the basis of a monograph to be devoted to the archeology of Esmeraldas.

Inasmuch as time did not permit us to extend our investigations northward from Manta to the frontier of Esmeraldas, nor to examine the ancient remains south of Manta, I again journeyed to Manabi during the summer of 1908. On this third expedition I was accompanied by Mr. George D. Hedian, the American consular agent at Esmeraldas. We made another visit to the hills in order to take additional notes, and then made several trips into the mountainous region south of Manta, which we shall designate the La Roma district. Our discoveries will be noted in the section devoted to tombs.

We then went to Bahia de Caraques in order to make a trip along the coast from this point to Cojimies, at the frontier of the province of Esmeraldas. This trip was made on horseback, along the beach, except at certain points where détours were made inland, owing to the impassable condition of the rocky shore-line along the base of rugged cliffs. We have thus examined nearly the entire shore-line of Ecuador from Cape San Lorenzo to Limones, with the exception of a short strip south of Manta, and a portion of the coast from Jaramijo to Bahia de Caraques. The Expedition has also examined the coast from Cape Santa Elena to Manglar Alto. Much remains to be done in this fascinating archeological field, but we feel confident that the results of our investigation published in these two reports will supply enough material to give an adequate idea of the ancient culture of the coast of Manabi. We would here call attention to the fact that, in this second report, constant reference is made to the preliminary report, and the two volumes must be consulted together in a study of the archeology of this region.

Conditions on the coast of Manabi are extremely varied, in both topography and climate. If we follow the route along the coast of the Spanish discoverers, from the north, we find that the humid region, extending southward from Central America, reaches almost to Charapoto, slightly below the Chone River. From this point to between Callo and Salango Island, the part of the coast where Manta is located, is an arid strip. In this section, however, the tops of the high hills and a small portion of the La Roma district, between Monte Cristi

and Cape San Lorenzo, have a moist, tropical climate, due to the nightly fogs and frequent heavy mists or drizzle, called "garua." In the coastal region we find again another more or less humid belt between Salango Island and Ayangue Point. Southward from Ayangue Point, which is approximately on the second parallel of south latitude, we come again into an arid zone even more desert-like and barren than in the vicinity of Manta. This dry zone reaches to the Gulf of Guayaquil, including the Island of Puna at the mouth of the Guayas River. Only a slight stretch of humid coast-area in the Gulf of Guayaquil, between the Naranjal River and the Island of Jambeli, interrupts the arid belt of the Cape of Santa Elena territory and the great desert which extends along the whole Peruvian and north Chilian coast.

These changes of arid and humid conditions result in a great diversity of climate and an ever-changing appearance of the shores. Heavily wooded hills and low mountains running parallel to the coast, generally ending in steep, rugged bluffs of varying heights, separated from the ocean only by narrow beaches, alternate with low, level tracts, in places bordered with sand-dunes, and almost entirely barren of vegetation. In parts, as in the vicinity of Manta, the hills lie at a distance from the sea. The southern part of the coast-line of the province is in general much more rocky and broken than the northern part, and contains a number of small islands close to the shore, with the single exception of the Island of La Plata, which is twenty miles from the land. The geological aspects of the coast are simple, the formation being tertiary, often covered by diluvial deposits. Great and constant changes have taken place in this region, due to volcanic disturbances and the incessant wearing-away and disintegration of the soft stone and sandy shores by wave-action and weathering. The fauna and flora, as well as the geology, of this province, have not yet received any serious attention, and, as we have before stated, the natural history of the coast and of the interior parts of the province offers an unworked field for the investigator. The only information to be found on this subject is in the "Geografia y Geologia del Ecuador," by Wolf, and he himself confesses that he was unable to visit the place personally, as, at the time when he desired to visit the province,

it was infested by a band of robbers. These conditions, however, have entirely passed away, and not only is the country now absolutely safe for one to visit, but we know of no healthier climate in any of the tropical regions of Spanish America.

Our own studies of the archeological remains are offered simply as contributions to the subject, and make no claim to be exhaustive or complete. We have, however, opened up for future work this interesting and important region, and we sincerely hope that our efforts will be the means of inducing others to carry on further researches here, especially into the conditions to be found in the country eastward,—in the hills and valleys which separate the coast of Manabi from the great valley of the Daule and Vinces river-systems lying at the western base of the foot-hills of the great Andean cordillera. Explorations should be carried on in the desolate and abandoned sites of the old cities discovered by the Spanish conquerors, from Cojimies to Manta, as well as in the vicinity of Colonche and Cape Santa Elena, which marks the southern limits of the "hill culture" with that of the Guancavilcas in the province of Guayas. Of special importance, would be excavations in the tombs in the La Roma district, excavations at Manta and in the vicinity of Caraques and Cape Pasado, but, above all, a thorough exploration of the ancient city of Coaque. In giving an account of our archeological studies on the Ecuadorian coast, we shall first consider the southernmost region, beginning at the Gulf of Guayaquil and advancing northward as far as the frontier of the province of Esmeraldas. This territory includes the coast-line of the provinces of Guayas and Manabi. We thus reverse the order of the descriptions given by the Spanish conquerors of their discovery of the coast during the sixteenth century.

ISLAND OF PUNA. The most important part of the southern region which we included in our plans for investigation was the Island of Puna, once occupied by a warlike people who were independent until conquered by Huayna Capac. Garcilasso de la Vega says that the chief of the island had never recognized any superior nor had his ancestors, and they even claimed to be the superiors of all the neighboring chiefs on the mainland. "Hence they waged perpetual wars, and this was the reason they could not resist the Inca, for they might have made

a long defence if they had been united." Puna was visited by Pizarro on his first extended voyage to the coast of Peru. Regarding the aboriginal name of the island there is great discrepancy among the early writers, and it is not possible, in the light of the conflicting accounts, to definitely fix this point. Velasco gives the name Lapuna to the people. In the recently published Spanish text of the Yslario General of Alonzo de Santa Cruz,[1] the name is given on the map as Anpana; but in the text it is called Tinbala or Anpana. Tinbala is variously spelled in other accounts—Tumala by Cobo, Tumpalla by Garcilasso, Tumbala by Cieza de Leon. In Oviedo we find it spelled Tambala, and he uses it as the name of the island. Again, as we shall have occasion to speak of later on, Tumbal is indicated as the name of a god. The greater number of authorities, however, agree in using the word as the name of the head chief or cacique; and the spelling of Cieza de Leon, Tumbala, has been adopted. According to Xerez, the Spaniards christened it Island of Santiago, and it thus appears on the Wolfenbüttel Spanish map, which is said to date, possibly not later than 1530.[2] This name was evidently soon abandoned, and Puna has been used universally to designate the island. It is about twenty-four miles long, sixteen miles wide, and at present contains about thirty-five hundred people, although at the time of the coming of the Spaniards it was thickly settled and had a number of cities, ruled over by seven caciques, one of whom was lord over all the others. Zarate gives us considerable information concerning the island. He writes that they clothed themselves with shirts and loin-cloths. He gives a description of their balsas, some of which could carry as many as fifty men and three horses. Their weapons for fighting were arrows, slings, clubs, and hatchets of silver and copper. They had many lances tipped with gold of a low grade. The men and women wore many jewels, and rings of gold, and they used vessels of gold and silver.[3] We learn from Velasco that there was a famous temple here dedicated to Tumbal, god of war. "The idol was a formidable figure, and had at its feet divers species of arms bathed with the blood of sacrifices. These were always prisoners of war, who were, while still alive, cut open over a great altar placed in the middle of the temple. It was dark inside, as there were no windows, the walls being covered with paintings and horrible sculptures."[4]

Our assistant visited the principal places on the island, and reported that nothing short of a series of excavations would yield any specimens, and that very few objects have been found here. We know of but one collection from the island, the property of Señor Gabriel Pino Roco, who is an enthusiastic collector. During two years he has only succeeded in bringing together about eighty spindle-whorls, twenty pottery vessels, and a small gold idol. In our preliminary report (pp. 76, 77) we called attention to several spindle-whorls which have been illustrated by Suarez.[5] There are ruins on the island, but of the famous temple which existed at the time of the Spanish Conquest, there is hardly a vestige left. The few objects in our collection, as well as the other specimens from the department of Guayas, will be described at the end of this monograph. We shall not go into further details concerning the history of this important island, inasmuch as the result of our investigations did not furnish us with sufficient archeological material for study, but in the Appendix will be found a few historical notes taken from various sources.[6]

Regarding this coast, we find in a document purporting to be written Dec. 14, 1526, the following very interesting note about "cities of stone," which refers either to the coast of Manabi or Guayas: "They proceeded along, discovering the coast of the Levant (they discovered onward, 200 leagues) in which were many stone cities, enclosed and enbattled, and of much size (with towers like those of Castile), a level country, with a great number of people and much gold and silver, which the Indians carried on themselves, and precious stones, and flocks of sheep, and people very well dressed (as is contained at length in the relation sent to His Majesty by Captain Pizarro). They arrived at the port of Tumbez to which was given the name Valencia."[7] We need not comment upon the fact that the date is misleading, as we know that Ruiz, on his voyage in 1526, did not sail beyond Caraques. In view of the statement that they reached Tumbez, we believe that this discovery of cities with stone buildings was made on a later trip, and, so far as we are able to judge from our knowledge of the coast, there is great probability that the statement refers to towns on the Island of Puna, although it may refer to settlements such as Jocay (Manta) or Colonche.

Authorities differ somewhat in regard to the extent of the territory occupied by the maratime people of the coast. According to Velasco, the Manta culture extended from the Charapoto coast to Cape Santa Elena. Cieza de Leon places the northern and southern limits as, respectively, Cape Pasado and Salango;[8] while Benzoni writes, that, on leaving the country of Porto Viejo (the Manta culture), the first village of the country of Guancavilcas was called Colonche.[9] The distance from Salango to Cape Santa Elena is about sixty miles along the shore, and somewhere in this country is the line separating the territory of the Guancavilcas culture from that of the Manta culture. The present frontier of Manabi may be taken hypothetically as the dividing-line between these two cultures at the time of the Spanish Conquest, and it is also the beginning of the arid region which extends throughout the province of Guayas. Hence the territory below the second parallel covering this arid zone may be affirmed to be the seat of the Guancavilcas culture. Owing to the discrepancy in the statements of the early writers,[10] this region is of very great interest and importance for archeological investigation.

GUAYAS. The region around Cape Santa Elena is a rather flat, barren, sandy desert with a sparse growth of mesquite-trees, although the cape itself is a flat-topped hill over four hundred feet in height, and appears from the sea like an island entirely devoid of vegetation, as will be seen in the photograph on Plate VIII. These general conditions prevail along the coast of Guayas almost to Guayaquil. Farther inland the country is somewhat hilly and more fertile, with tropical vegetation. It will be remembered that the coast around Cape Santa Elena was the place where the traditional landing of the giants took place, and that, furthermore, Cieza de Leon cites the existence of artificial wells, and states that during his time, even the sites of the houses built by the giants were pointed out. He differentiates the people of the northern province from those here by their custom of painting the face, and gives a list of the towns of Manabi where this custom prevailed. The Guancavilcas people, who occupied the province of Guayas from Cape Santa Elena to the present city of Guayaquil, are said by Velasco to have been made up of numerous

tribes, of which he gives the following names: "Alonches, Babas, Babahoyos, Chanduyes, Chongones, Chunanas, Colonchis, Daulis, Guafas, Mangachis, Nanzas, Ojibas, Palenques, Pimochas, Quilcas, and Yaguachis. Although all of these were tribes of a single nation and with a mother-tongue, they distinguished the principal which preserved the name of Guancavilcas, because all of the people lacked the two middle teeth of the upper jaw, and that is what the name signifies. By an ancient custom, they took out these two, and later they took out four on account of a penalty and punishment which was put upon them by the Inca Huaynacapac."[11] Of the Guancavilcas, Cieza de Leon mentions the custom of pulling out three teeth in each jaw, which he says was practised in earlier times, and had apparently passed into disuse when the Spaniards first entered the country.[12] Benzoni was here in 1547, and visited the Cacique of Colonche. He says that the people sometimes drew five or six of their upper teeth.[13] According to Garcilasso de la Vega, this custom arose from the punishment inflicted upon the chief men of this nation by Huayna Capac, because the embassy sent by his father to the country, after its subjection, had been killed. It was ordained that they should pull out two of their upper and two of their lower teeth, and that this should be done by their descendants forever. He further states that this was adopted as an honorable distinction, because it had been ordered by the Incas. They all pulled out their teeth, and those of their sons and daughters, as soon as the second set were cut.[14] We give these statements concerning the origin of this custom of extracting the teeth for what they are worth. By far the most interesting statement on this subject is the notice which Cieza de Leon gives in another chapter of his work, where he writes, that in some of the towns the caciques or chiefs fasten bits of gold on their teeth. We know that this was also a custom of the Indians of the region of Atacames in Esmeraldas, and this feature will be fully treated in our monograph on the archeology of Esmeraldas.

It may be well to mention here that at the present time, in Manabi, there exists the custom of filing the teeth to a point, and that special iron files are used for the purpose. We find no reference to this custom among the early writers, the only information relative to

the teeth being in the statements made above, regarding their extraction. Although in certain parts of Spanish America the filing of teeth into different shapes was often practised, we have never seen any teeth filed to a point, nor did we find them in any of the skeletons which we obtained along the Ecuadorian coast; hence we assume that this modern custom of teeth-filing is not a survival of an ancient practice among the Indians, but has been introduced with the African element which early came to the shores of western South America. At the present time many African tribes file their teeth to a point.

According to the recently published "History of the Inca Kingdom," written by Pedro Sarmiento de Gamboa, the Guancavilcas were first conquered by Tupac Inca Yupanqui, the father of Huayna Capac. "He heard that there was a great nation towards the South Sea, composed of Indians called Huancavelicas. So he determined to go down to conquer. At the head of the mountains above them he built the fortress of Huachalla, and then went down against the Huancavelicas. Tupac divided his army into three parts, and took one by the most rugged mountains, making war on the Huancavelica mountaineers. He penetrated so far into the mountains that for a long time nothing was known of him, whether he was dead or alive. He conquered the Huancavelicas although they were very warlike, fighting on land and at sea in balsas, from Tumbez to Huañapi, Huamo, Manta, Turuca, and Quisin. Marching and conquering on the coast of Manta and the Island of Puna, and Tumbez, there arrived at Tumbez some merchants who had come by sea from the west, navigating in balsas with sails. They gave information of the land whence they came, which consisted of some islands called Avachumbi and Ninachumbi, where there were many people and much gold."[15] These islands are supposed to be the Galapagos. They rebelled against the Quichuas during the reign of Huayna Capac, and were apparently pacified, as the Inca later visited the country, coming along the coast from Coaque. They again later arose against the Incas, and Atahualpa sent an army against them and conquered them, inflicting severe punishment.

Regarding the customs of the people of the Guancavilcas nation, Garcilasso informs us that the "men and women bored the cartilage between their nostrils, and wore there a jewel of gold or silver."

Benzoni writes about the Caeique of Colonehe as follows: "He used to be drest in a shirt without sleeves, dyed red; round his neek he wore an ornament of the purest gold, six times double, like large eoral; on his hand he wore a ring, also his ears were piereed and full of jewels and gold; finally, on his left wrist he wore a certain shining stone like a mirror, said to be a preserver of the sight." He further adds regarding the people: "They wear a small shirt without sleeves, like the natives of Porto Viejo. From motives of deeeney they wear a eotton band round their middle, one end of which hangs down behind nearly to the ground like a horse's tail. The women wear a eloth bound round their waist, and hanging halfway down their legs."[16]

We quote here at length what Cieza de Leon says in deseribing these people, in a chapter devoted to the provinee of Guayas. He writes: "Many of the Guaneavilcas Indians serve the Spanish eitizens of this eity of Santiago de Guayaquil; and, besides the eity, the towns of Yaquel, Colonehe, Chanduy, Chongon, Daule, Chonana, and many others are within the limits and jurisdietion of the provinee. All these plaees have fertile lands well supplied with provisions and abundanee of fruit, and in the hollows of the trees there is mneh exeellent honey. Near the eity there are wide open plains, forests, and thiekets of tall trees. Rivers of good water flow down from the mountains. The Indians, both men and women, dress in shirts, with eloths between their legs. On their heads they wear erowns of very small gold beads, ealled chaquira, and some of silver. The women wear one mantle from the waist downwards, and another over their shoulders, and their hair is worn very long. In some of these villages the caciques or ehiefs fasten bits of gold on their teeth. It is said by some of them that when they sowed their fields they saerifieed human blood and the hearts of men to him whom they revereneed as god; and that in every village there were old Indians who conversed with the devil. When the chiefs were siek, to appease the wrath of their gods, and pray for health, they made other saerifiees of a superstitious nature, killing men (as I was told), and believing that human blood was a grateful offering. In doing these things they sounded drums and bells before eertain idols shaped like lions or tigers, whieh they worshipped. When any of the ehiefs died, they made a round tomb with

a vaulted roof, and the door towards the rising sun. The body was buried with live women, his arms, and other things, in the same way as was done by the Indians already described. The arms with which these Indians fight are wands, and clubs called Macanas. Most of these Indians have died out and come to an end."[17]

Unfortunately we are unable to present much material illustrating the archeology of this region. Our plans for an investigation of the country from Guayaquil to Chongon, and southward along the shores, including Chanduy to Santa Elena, were not realized, owing to the illness of our assistant who was charged with this mission. Our investigations cover only the region from Cape Santa Elena, along the shores, northward to Colonche and as far as Manglar Alto. Our entire knowledge regarding the antiquities of this territory is confined to the information contained in an article "On Crystal Quartz Cutting Instruments of the Ancient Inhabitants of Chanduy (near Guayaquil in South America),"[18] and a few statements by Wolf in his "Geografia y Geologia del Ecuador."[19] Markham states that implements of quartz-crystal are found along the entire coast-line from Cape Santa Elena to Guayaquil, but that they occur in greatest abundance near the latter place, "chiefly on certain low mounds laid bare by the winter rains." He writes that the Chanduy specimens were found in refuse-heaps, which "consist chiefly of fragments of pottery, and of sea-shells of four species; an oyster, a mussel, a cockle, and a large heavy bivalve, beautifully fluted, and with a remarkably thick bevelled edge, called by the inhabitants *pie de burro*. The latter shell is not now found on the coast near Chanduy." Wolf found worked obsidian at Colonche, as well as various objects of pottery.[20] Our own collection from this region consists of a few specimens from near Cape Santa Elena and the vicinity of Manglar Alto. The hill of Colonche, sometimes called Cerro Prieto, is about six miles inland, and the remains of the Indian town may still be seen. A few years ago, three gold cups of different sizes were found here. One is still in the possession of a resident of the town of Santa Elena. It is 3 inches (7.6 cm.) high, 4½ inches (11.5 cm.) in diameter at the top, and 2½ inches (6.3 cm.) in diameter at the base. The other two—one of which was slightly larger, and the other a little smaller, than the one still in Santa Elena—were sent to the St. Louis Exposition,

and later sold. The finding of these objects of gold resulted in the ransacking of the place by numerous individuals, who dug indiscriminately, hoping to find treasure; but nothing else of value was excavated, excepting pottery, which was not preserved. Doubtless a careful excavation of this site, as well as in the vicinity of Santa Elena, would bring to light material of value for our studies.

As we have already stated, the coast between Manglar Alto and Manta has not been explored to any extent by our expeditions. The coast from below Manglar Alto, northward as far as Cape San Lorenzo, is much broken, and consists of bluffs alternating with low plains covered with forest; and here and there are mountain-ranges, in one place about twenty-four hundred feet in height, running parallel to the shore. All along the shores there is a very heavy surf, and landing at the few ports which are open roadsteads is always difficult, sometimes very dangerous, and at times impossible. A view of Manglar Alto is given on Plate VIII. Midway between the Island of Salango and Cape San Lorenzo is the small town of Callo, which is in a small bay; and a few miles south is Machalilla, of which we give a photograph on Plate VIII. Callo is the seaport for the flourishing town of Jipijapa, which lies to the north of east in a somewhat arid valley, about twenty miles from the sea. We heard of a stone sculpture, mentioned in our preliminary report, found between this place and Jipijapa.

ISLAND OF LA PLATA. Continuing up the coast, about nineteen miles beyond Callo, is the Island of La Plata, of which we give a picture in Plate VIII. It is about thirteen miles from the shore. This island is about two miles and three-fourths long, and has a very steep and precipitous shore-line. The surface is broken and uneven, rising in places to nearly eight hundred feet in height. It is covered with a heavy underbrush, a large cacti. The southern end of the island contains a small tract, devoid of vegetation, which is a breeding-ground for vast numbers of pelicans. It is reputed to be the island which Stevenson had in mind when writing his famous "Treasure Island," for the name La Plata, or "Silver Island," was given to it by the Spaniards on account of the silver and gold which was found

there. It was an important place in ancient times, and was the site of a famous temple (see p. 14 of the preliminary report).

In 1892 Dorsey carried on excavations here, and obtained a considerable collection, which now is in the Field Columbian Museum, Chicago.[21] He found quite a number of objects of gold and pottery which were of Inca origin; but by far the greater part of the collection represents the culture of the Manabi coast. At the same time, there are many specimens which are quite unlike anything which we have found on the mainland. The pottery figures representing human beings and animals resemble only in a general way the objects of like character from the "hills." In detail, many of them are more like the pottery figures from farther north, in the Esmeraldas region; in fact, some of the heads of figures are practically identical with those from the Island of La Tolita, on the coast of Esmeraldas. We believe that the pottery vessels of the Inca type, as well as the gold and silver images, were brought to the island by people living to the south, who probably obtained them by commerce with the Quichuas of Peru, although Dorsey conjectures that the graves represent the remains of some stray band of Quichuas, and do not pertain to the people of the mainland. We shall call attention to the similarities between the La Plata specimens and those of our collection when we take up the detailed description of our specimens.

Dorsey found the objects of his collection largely in refuse-heaps and in intrusive graves; in graves were discovered the objects of Quichua origin. From the character of his finds, he believes that the place was not permanently occupied, and this is in line with the tradition of the place. Utilitarian vessels, or fragments of the same, were almost totally absent, which bears very strongly upon the correctness of Dorsey's theory. We regret that we have not been able to continue the interesting work which Dorsey began, and we again reiterate, that the whole coast of Manabi should be most carefully explored in order to fill in the many gaps in our knowledge of this section of South America.

LA ROMA DISTRICT. On our last expedition to Manabi, in 1908, we investigated the low hill region to the southwest of Manta,

between the Hill of Monte Cristi and Cape San Lorenzo. This region, to which we shall give the name La Roma district, appears to be a hilly land of rich tropical verdure, varying from six hundred to eight hundred feet above sea-level, and it is even more fertile than Cerro de Hojas. It has, however, a most singular feature, in the existence of an arid section a few miles south of the settlement of La Roma, which is approximately in the centre of the district. The separation of the dry and arid section from that of the humid and fertile part is sharp, and marked by almost a line, one side of which is green, and the other gray. This line marks the limit of the fog-belt. During the time we were in the district the fog became a drizzle, effectually preventing our carrying on the extended researches which we desired to make in this very interesting part of Manabi. We have practically the same conditions in this district as are found in the hills of Jaboncillo and Hojas, with the exception that the tops of the hills are fertile and the line of the arid section is below it; while in the La Roma district the separation of the humid from the arid zone is on the undulating surfaces of the hills. In the damp and humid section are the extensive remains of ancient settlements, as shown by corrales. We did not learn of their existence in the dry region. In the vicinity of the corrales we saw several broken stone seats identical with those found in Cerro Jaboncillo. They were of the human figure and animal figure types.

During our excavations in Cerro Jaboncillo in the summer of 1907, we discovered, on the top of a narrow ridge forming one of the western flanks of the hill, three deep holes cut in the solid rock, which we supposed at the time to be ancient wells. Our attention was called to many quite similar well-like holes in sections of the dense forest a few miles from the settlement of La Roma. They were tombs, and will be described later under the section devoted to tombs.

From this region we have large necks of ollas, characterized by a face, modelled in relief on the side. These were found at San Egada, about fifteen miles from Cape San Lorenzo, and according to our *mozo*, Pedro Franco, there were great quantities of potsherds at the same place, and complete ollas have been found in the immediate vicinity. Somewhat similar fragments have been discovered at Cerro Jaboncillo,

from the vicinity of Caraques, and we have numerous pieces quite like these necks from the province of Esmeraldas. The Expedition made a reconnaissance of the region lying between Cerro Jaboncillo and the town of Jipijapa, and penetrated to the base of Cerro Jupa, returning from there to Monte Cristi. Owing to the illnesss of Mr. Pepper, only a very rapid survey of this region was made, but conditions were found to be the same as in Cerro de Hojas. Corrales were frequently observed (see Plate IX), and the notices which we had received, of the existence of seats in the southern hills, were confirmed.

MANTA. In the preliminary report we made mention of Manta, but on our first expedition the greater number of our photographic films were fogged, so that we were unable to present any photographs of the region, or the ruins in the vicinity. On Plate X of the present monograph are views taken in Manta. One picture shows a section of the water-front, and another a portion of the town looking towards Monte Cristi. Still another view shows a bin of tagua-nuts, the exportation of which forms the principal industry of Manta. In another view will be found the natives carrying sacks of tagua, weighing two hundred pounds, to the launches which transport them to the steamer anchored several miles from shore. A characteristic view is shown of the fisher-people drawing a net, a daily scene along the beach just east of the town. In the preliminary report we described the ruins of Jocay, just south of the town of Manta (see pp. 19 to 21). On Plate XI of the present report are six photographs of corrales, which show clearly the character of the ruins and the aridity of the soil. These were taken in the immediate vicinity of the town, but a little farther inland the ruins are covered by a dense scrub-growth.

CARAQUES. As our principal work was done in the Cerro Jaboncillo area, and the greater part of this report is based upon those researches, we shall, before treating of that part of Manabi, proceed with the narrative of our trip along the coast in the vicinity of the equator. The distance from Manta to Bahia de Caraques is about thirty miles, and we went by steamer, making the trip in three hours. Caraques is one of the important sites for the archeologist, as it is the reputed first

theatre of action of the Caras after their arrival in Manabi, and it is said that here they founded a city. We do not know whether the Spaniards found any important town at this place when they first entered the country, but Zarate speaks of "some towns in the province called Caraque." In Herrera, we find a notice of the bay, in which he states that boats could enter without danger, and ships even of a thousand tons might safely anchor.[24] According to Villavicencio, a city of Cara was founded by the Spaniards in 1562, on the site of an ancient Indian town of Cara, and this settlement was destroyed in 1589 by a formidable pest.[25] During the visit of La Condamine to this region, in the year 1736, the site of the present city of Bahia de Caraques was uninhabited, but there was a settlement across the river, which still exists under the name of San Vicente, and this place is found on the map of La Condamine under the name of Caraques.[26] The present town of Caraques was established later than the middle of the nineteenth century, and is at the present time one of the most flourishing and prosperous of the towns of the entire coast between Guayaquil and Panama. Until a few years ago, steamers were able to enter the broad basin or bay of Caraques, which forms the mouth of the Rio Chone; but now the channel is filled up, and anchorage is several miles from the shore. From the steamer we have no indication of the beauty of the location of this tropical city, which lies only about thirty-five miles south of the equator. It is on the left bank of the Chone River, near its mouth, which is here more than a mile wide, forming the Caraques Bay. From the deck of the steamer, a mile or more from shore, it is hidden behind a high bluff, Punta Bellaca, which marks the entrance to the river. The bluffs just south of this point are shown on Plate VIII. Well built boats take us to the shore, but this trip is one of the most exciting which we have ever taken. Near the mouth of the river are two ledges, over which the sea constantly breaks. As we have before stated, there was formerly a channel here, sufficiently deep to enable the steamers to enter the mouth, and anchor in the broad basin opposite the town. This is partially filled up, so the trip to the shore is made in small boats. There are cross-currents here resulting in high waves, and, as we near the narrow passage between these reefs, the head of the boat has to be held stiffly, and we shoot on the crests of great waves

for several hundred feet, through the gap. We no sooner escape this peril than we strike the cross-current with great rollers, where the course has to be changed. Boats rarely go through here without being partially filled with water, and often-times they are capsized. From the town one looks eastward up the broad river to the hills, where there is a valley through which the river flows. There is evidently a continual break in the hills up to the great Andean Mountains, as, on several occasions during our visit here, we heard very distinctly the loud, distant booming and detonations occasioned by an eruption of Cotopaxi. The town itself is well laid out and is a model for tropical coast cities. A view of a portion of the street facing the river is shown on Plate VIII. It was a great surprise to us, when coming for the first time to this place, to find well-built houses furnished in American style, and with bath-rooms. Caraques is practically on the border-line of the change from the tropical vegetation of the north and the arid, desert-like region just to the south, and has a good climate, but not quite as agreeable as in the region immediately south. It is destined in time to become a city of importance and one of the greatest seaports on the western coast of South America. The harbor-entrance could be dredged so as to admit steamers of any size into the broad and deep basin. A railroad is projected from here to Quito, which we understand will soon be constructed, and it will open up an enormously rich and fertile territory, as yet almost uninhabited. Commerce at present is mainly in the exportation of the ivory-nut and the chocolate-bean. Caraques will certainly in the very near future be an important and thriving city, especially after the opening of the Panama Canal, when we expect to see this entire region opened up to settlement, and its marvellous natural resources exploited.

The remains of the ancient town of Cara may still be seen in the modern town, and in some of the streets we observed the outlines of corrales in stone, so typical of the ruins in the vicinity of the hills and Manta. So far as our observations allow us to affirm, corrales do not exist north of this place. A most careful search of the region to the north failed to reveal any, and none of the inhabitants of this section of the coast have ever seen them. A few rods south of the town is a slight hill called El Hermano. At its base, along the

beach of the bay, we found many potsherds which extended even to the town itself. In the bank are deposits of ancient remains with a line of ashes eight feet from the surface, and also another large deposit of sea-shells mixed with potsherds, three feet from the surface. The remains here are undoubtedly a part of the ancient town, and show it to have been a place of considerable size. At the time of our visit, excavations along the side of a hill were being made for a church. Fragments of pottery figures and vessels, and a sculpture of fine limestone about three feet high, were found in this place. This sculpture represents a woman, and in execution resembles the sculptures found near Manta. We were unable to obtain much material here, as the priest in charge of the church is an enthusiastic archeologist and collector, and he has secured practically all the antiquities which have been found in this region. Owing to his absence on a parochial visit, we were unable to see his collection. The late Alejandro Santos of Bahia de Caraques brought together a small but exceedingly interesting collection of antiquities from the vicinity of Caraques, which, through the kindness of Mrs. Santos, we are enabled to figure and describe in this monograph. A few other objects which we secured from this region will be described, with the Santos collection, in the appropriate section. These specimens differ slightly from the objects obtained in the hills: there are points of difference, however, which would seem to indicate that the Caraques culture is somewhat distinct from that of the hills, and that it should be included with the region to the north.

In the range of high hills south of the Chone River, between Caraques and Charapoto, known as the Cerros de Balsamo, corrales and sculptures are said to occur. The typical seats and bas-reliefs of Cerro de Hojas and Cerro Jaboncillo do not occur north of the Chone River, which empties into the Bay of Caraques, and, during our trip into the region from Caraques to Cojimies, we found nothing in the shape of stone sculptures. We are safe in assuming, so far as the character of the archeological specimens which we saw or obtained along this stretch of coast permit us to judge, that the typical culture of the hills ends in the vicinity of Caraques, and that Caraques probably marks the extreme northern limit of the Manabi culture. Our hypothesis, based upon the character of the material, and in the entire

absence of stone sculptures of the hill type, is supported by the statement of Velasco, who writes that the Cara nation occupied the land from the cove of Charapoto to Cape San Francisco. As will be seen by referring to the map, the cove of Charapoto is at the mouth of the Porto Viejo River, and the Cerros de Balsamo lie between this river and the Chone River. From Caraques, we began to find deposits of ancient remains along the beach, and these extend northward, as far as our observations go, nearly to the Colombian frontier. Owing to the fact that this coast is sparsely settled and the people take but little interest in antiquities, and also because the Padre has obtained nearly all of the archeological objects which are accidentally found, we were unable to secure an adequate collection from this part of Manabi. Excavations, however, would amply repay the archeologist, but our time did not permit us to carry on this important work.

CAPE PASADO. Beyond Caraques, the next settlement of any size is Canoa, which is close to the southern end of Cape Pasado, and about twelve miles north of Caraques. Canoa was established in 1638, and, according to the map of La Condamine, was the only town in the whole stretch of coast between Charapoto and Atacames in Esmeraldas having a church, in the middle of the eighteenth century. We left Caraques in the afternoon, going across the river in a canoe. On this side is the small settlement of San Vicente. We engaged here a Studebaker wagon drawn by four mules abreast, for the twelve-mile journey along the beach to Canoa. The animals were driven at a gallop, making the distance in an hour, over the hard sand. When the tide is out, the road is excellent; but when it is rising, the horses have to go in the soft sand at the high-water mark, and near San Vicente have to go round, or in between rocks with the water up to the axles of the wagon, and the surf is usually very strong. The beach from San Vicente to Canoa is the only place on the coast where we were able to travel in a wagon. All of our other trips were made on horseback. Along the beach near Canoa there are thousands of potsherds which have been washed down from the small creeks. Up the Rio Briseño, just south of Canoa, there are said to be many ancient remains in the banks of the river, and at its mouth we saw many potsherds on the

beach, but between Briseño and Caraques we did not observe any antiquities along the shore.

Canoa is quite an important town, much cacao being raised on the haciendas in the vicinity. It is located near the beach, at the mouth of the Canoa and Muchacho rivers, which, coming together near the northern part of the town, form a single stream, which flows into the Pacific Ocean at the southern base of Cape Pasado. A view of the southern part of the cape is given on Plate XIII. At this point, and even along the base of the cape, we found innumerable potsherds on the beach. The vicinity of Cape Pasado is a most important one both historically and archeologically, for this point is the first great promontory south of the equator which was discovered by the Spanish conquerors, and owes its name to this fact,—Cape Pasado or Cape Passed. According to the early writers, the people who lived here were called the Passao, but, as Wolf in his geography of Ecuador remarks, there is a strong probability that this name is derived from the Spanish word given to the cape. By corruption it may well be changed to Passao, in view of the fact, also mentioned by Wolf, that we read of the Colorado Indians, the Tortolas Indians, etc., and it is certain that these latter names are not aboriginal.[27] We are inclined to the view that the Indian name of the tribe living near the cape was not originally Pasao or Passao, and that the true name has been lost. At the time of the Spanish Conquest there was in this vicinity an important town, but we are not able to determine definitely whether this town was to the north or south of the cape. It was doubtless to the north, and the people living there probably had a considerable degree of culture. Garcilasso de la Vega states that the district of Passau is exactly upon the equator. We presume that he referred to the region of Cape Passado, which is a little south of the equinoctial line. This would embrace the strip of coast from the present town of Canoa, north to Jama. This territory is midway between Caraques and Coaque. He gives a not very flattering description of the people, stating that they were the most barbarous people conquered by the Inca, and that when he was there in 1560 they were the wildest people it was possible to imagine. He furthermore says that they had neither villages nor houses, living in hollow trees, in caves under the ground, or in

crevices of the rocks.[28] No such account of the natives of this part of the country can be found in the narratives of the first explorers; in fact, Herrera states that Pizarro, after leaving Coaque, came to a pueblo called Passao, and that the lord of the place, after making peace with the Spaniards, gave to Pizarro an emerald stone for grinding corn, as large as a dove's egg.[29]

During our stay in Canoa, a heavy mist rolled in from the sea late in the afternoon, which turned to rain in the evening,—a weather condition said to be of common occurrence. We have seen no heavier surf in any region we have ever visited, and from a distance the shore appears to be covered by a fog, which gradually disappears as we approach nearer. The cape is always more or less shrouded with this thin mist (see Plate XIII), and consequently the vicinity has a dense, luxuriant vegetation and the land is exceedingly fertile. It cannot be rounded on the beach, as the waves break continually at the base of the almost perpendicular cliffs, the cape being a series of high rocky bluffs about five miles around, and it is the only place along this part of the coast which we travelled that cannot be rounded on horseback. There are lesser points along this part of the shore of Ecuador which are rounded with great difficulty, on account of the tilting strata of slippery rocks, which are seldom covered with sand. When they are sand-covered, the animals make the trip without much trouble; but often a single tide after a storm is sufficient to entirely denude them of sand, making the journey dangerous for the animals. Usually, under such conditions, a trip around the points will not be undertaken by the natives, and it is foolhardy to make the attempt. When the rocks are bare, travelling is by long détours around the inner parts of the points, which consumes much time and is often arduous, owing to the tropical jungle. The détour around Cape Pasado to Jama, going entirely through the forest, takes ordinarily seven hours to accomplish, whereas, if it were possible to make the trip by the shore-line, the journey could be completed in less than half that time. Scenes along this inland trail are given on Plate XII, showing a cacao hacienda, and some of the paths, but the greater part of the trail is not cleared, as in the views shown. As there are but few roads in this part of the country except along the beaches and by way of the détours around certain points, much time is lost in

waiting for the tides. We obtained from here one of the most interesting archeological specimens from the equatorial region, which will be described later on.

During the early morning it cleared enough for us to leave Canoa on horseback for Jama; but the trails were in a muddy condition, and travelling was difficult. Leaving the town, we crossed the Rio Muchacho at the base of the cape, and turned inland, taking a zigzag, winding trail through the dense forest, crossing and recrossing the Muchacho, the Tabuchilla, and Hachita rivers, and several minor streams, all of which are part of the Rio Muchacho. The streams, which we had to cross almost continually during the first part of our journey, were swollen; indeed, the greater part of the trail around the back of Cape Pasado, for considerable distances, was in the bed of the creeks. In this part of the region back of the cape, are a number of rich haciendas, for there is abundance of running water, and moisture rises from the heavy mists which blow in from the sea. These farms produce cacao, indiarubber, tagua, and other tropical products, and the whole region is exceedingly fertile, and capable of much profitable development. Farther inland, about halfway to Jama, we ascend many slight, heavily forested mountain-ridges, which are undeveloped. Crossing these ridges, we come again into a country of haciendas, where, although with the same luxuriant tropical vegetation, the land has been more cleared, and we enter a good road, which continues until we reach Jama. Along parts of the way we were surprised to find the farms fenced in by barbed wire. Several miles east of the town we crossed the Mariano River, which here flows into the Jama. We then forded the Jama River, and soon reached the modern village of Jama, which is on the right bank of the river, about half an hour's ride from the sea.

This trip from Canoa to Jama was along what is called the "inside route," and we did not visit the small settlement called Pasado, just to the north of the cape, but on our return trip we came to within a quarter of a mile of the place. The conditions which we observed along nearly the whole stretch of coast from Caraques to Cojimies, do not differ in the vicinity of the cape; namely, that along nearly every mile of the coast where the beach-line is not rocky or precipitous, ancient remains can be found.

JAMA. The town of Jama was established about thirty years ago, and there are probably not more than fifty houses there at present. It is in a broad, level valley of great fertility. The climate is very agreeable, and for a place so near the equator, it being about twelve miles south, the humidity is not excessive, but during the dry season there is frequently a pest of garrapatas, due to the large numbers of cattle raised in the vicinity. Near the town, antiquities are often found in the steep right bank of the river, and the remains show the presence of a large settlement in former times. Farther down towards the ocean, about half a mile from the beach, there is an ancient salt-pit several hundred yards in diameter, and close to the river. Many fragments of large clay vessels were observed scattered about near the edges of the depression. They were sherds of a thick brown and red ware, and were probably the remains of salt-pans. From the mouth of the Rio Jama on the shore, as far as Punta Brava, large quantities of potsherds are scattered along the beach, reminding us of the conditions on the Esmeraldas coast.

At a distance of two or three miles from the mouth of the Jama River, we come to a small stream called the Rio Don Juan. In this vicinity archeological objects are frequently found, and we secured several interesting specimens from there. A mile beyond is the hacienda of Buena Vista, about seven miles south of the equator, and about three miles and a half from Punta Brava. On account of the tide we were obliged to spend the night at this hacienda. We saw evidences of man's occupancy of this shore in ancient times, in the low banks above high-water mark. Punta Brava is a sharp point making out into the ocean, and on account of the treacherous tides it is seldom rounded. We were fortunate in finding the tide and the beach in the right condition, and were saved the tiresome détour. We passed the point, however, with the water up to the breasts of the horses. La Condamine in his "Carte de la Province de Quito au Perou"—taken from his astronomical observations and geographical measurements, the whole groundwork of which is based on the map of Maldonado, and made by d'Anville in 1751—gives Tabunta as a point between Jama and Palmar.[30] Palmar Point he places directly on the equator. Tabunta is undoubtedly the point now known as Punta Brava.

From Punta Brava, an hour's ride on the beach took us to Palmar Bay, where the equatorial line passes. Palmar Point is at the north of this slight bay, and there is a white point at the southern end of the bay. Back of the level beach are low hills running north and south, covered with the dense tropical jungle. There is a rancho here, and we saw several large ollas with broad flat bottoms, which were found, with other objects, in the banks of a small creek which empties into the ocean just south of Palmar Point. We were told that the climate here, immediately on the equator, is healthy and agreeable. It is a most picturesque spot, and the jungle, although dense, might be easily cleared, and the whole region is capable of being developed into fertile farms. A picture taken along the beach in Palmar Bay, directly at the equator, is shown on Plate XIII.

La Condamine, in his "Introduction Historique" (p. 12), says, "Je déterminai le point de la côte où elle est coupée par l'equateur: c'est une pointe appelée Palmar, où je gravai sur le rocher se plus saillant une inscription pour l'utilité des Marins." This inscription was, "Observationibus . . . hocce promontorium Æquatori subjacere compertum est. 1736." He gives as a heading to the "Introduction Historique" (on p. 1) an engraving of the rocky shore at this point, showing the inscription on the face of a rock forming part of the bluff, with the shore-line to the north indicated by several points, and a canoe with three persons making a landing. A few years ago a diligent search was made for this inscription, without success. It has doubtless been destroyed by the washing-away of the shore, as the rock is rapidly disintegrating, and we could find no traces of it during our journey in 1908, when we passed the place twice on the trip from Caraques to Cojimies, and return. We give on Plate XIII a view of a rocky point near Palmar, and another just north, will be found on Plate XIV.

COAQUE. Leaving Palmar, we proceeded on our journey northward, and about a mile and a half from Palmar Point we came to a large promontory, which marks the southern limits of the small Bay of Coaque. Owing to the high tide, we were obliged to make a détour inland, and ascended to the top of the heavily forested point, about a

mile back from shore. The promontory is about three hundred feet high, and from the northern side we have a magnificent view of the Coaque Bay as far as Pedernales Point, as shown on Plate XIV. On the same plate is a view of a point south of Coaque, showing the beach denuded of sand, and the tilting strata of slippery rocks exceedingly difficult to cross on horseback. Coaque Valley is about a mile and a half in width at the beach, and the river has its rise in the high mountain-range called the Hills of Coaque, at some distance from the shore. About ten miles inland, almost directly on the equator, is the highest mountain of this range, called Cerro Pata de Pajaro, which rises, perhaps, five thousand feet in height, and the summits of the highest peaks have never been ascended. From Pedernales, where we obtained our best view of the hills, they appear to run directly from north to south, are covered with dense forests, and most of the time were hidden by the clouds. The highest peak is said to have a small plateau on its summit, which can only be reached by climbing almost vertical, precipitous cliffs, and local tradition states that there are the ruins of a city on the summit. We planned to visit the mountain and attempt the ascent, but were prevented by the incessant rains which prevailed in the vicinity during the several days we spent here. This range is the highest land visible from the ocean between Panama and Guayaquil, and the region is practically unexplored a few miles inland. Only the native indiarubber and tagua gatherers ever penetrate the dense forests above its base, and it is not at all improbable that mounds marking the sites of ancient cities lie buried in the jungle.

Up the river, not far from its mouth, are a number of large haciendas, but near the mouth there is no settlement, with the exception of a rancho and store close to the beach; yet in ancient times this beautiful region contained one of the most important and populous cities of the entire northwest coast of South America. At the present time it is exceedingly difficult to find traces of this once flourishing city, of the existence of which even the inhabitants of the immediate vicinity are ignorant, and we were the first to investigate this site. South of the river there are a number of low, flat-topped hills, which now have been cleared of the forest jungle, and are cultivated. Many of these appear to have been artificially levelled, and this spot is undoubtedly the

site of ancient Coaque. All along the southern banks of the river we find innumerable traces of ancient remains. We excavated a few things from the banks while waiting for the tide to go down in order to resume our journey. Along the beach from the mouth of the river to Pedernales Point, a distance of little over a mile, we saw potsherds strewn along the shore.

That Coaque and vicinity was an important region in precolumbian times is shown by the information contained in the work of Sarmiento de Gamboa. We read that the Inca Huayna Capac, after concluding his war against certain tribes in the vicinity of Quito, set forth to organize the nations he had conquered, including Quito and Pasto, which are in the north central part of Ecuador, and Guancavilcas, now the province of Guayas. Coming to a river called Ancas-Mayu, he set up boundary stones to mark the limits of the country which had come into his possession. "He then followed the course of the river in search of the sea, seeking for people to conquer, for he had information that in the region below there was a great number of people." It is further stated, that on this journey the Inca came into contact with a horde of people of whom he had no knowledge, and that he was surrounded by them. He attacked and routed them, "and the fugitives made for their habitations, which were on the coast of the sea toward Coaques, where they secured (the Incas) a great amount of rich plunder, and very rich emeralds and turquoises, and a quantity of mollo, which is a certain mass made of sea-shells, more esteemed among them (the Indians) than gold or silver."[31] It is certain that this territory was not brought into permanent subjection by Huayna Capac, but in this report we are not informed definitely concerning this point. We learn also in the work of Sarmiento, that the Inca, while in this part of the coast, received word from the chief of the Island of Puna, and that he went to the province of Guancavilcas, which is now the province of Guayas. It is not at all probable that he retraced his steps into the region of Quito, and down through the central plateau, in order to reach this southern coast province; hence we assume that his march was along the coast, through the province of Manabi, to Guancavilcas. Cieza de Leon affirms that Huayna Capac, on this trip, subdued the various tribes with whom he came into contact, and established colonies;[32] but we believe

that he refers only to the Guancavilcas province, and possibly a section of Porto Viejo, which includes the region between Charapoto and Callo. No other authority than Sarmiento tells us that Huayna Capac was himself in Coaque. According to the best authority, Fray Marcos de Niza, Huayna Capac reigned from 1487 to 1525,[33] hence this visit was probably some time after the beginning of the sixteenth century.

Ruiz, the pilot of Pizarro, was the first Spaniard to see Coaque, when in 1526 he made the trip southward along the coast of Manabi, beyond Cape Pasado, as far as the vicinity of Caraques. In January, 1531, Pizarro sailed from Panama, and after a voyage of thirteen days reached the Bay of San Mateo (the mouth of the Esmeraldas River), where he made a landing with his horses and the greater number of his men. Here he prepared for a march down the coast, the ships keeping him company near the shore. He apparently remained bnt a short time at Atacames. His first conquest of note was the sacking of the town of Coaque, and in the "Relation of the Discovery and Conquest of the Kingdoms of Peru," by Pedro Pizarro, there is considerable mention of Coaque. He states that the town was near very large and high mountains, and that the immediate neighborhood was highly cultivated. The Spaniards obtained emeralds, and much gold and silver in the form of beads and crowns, to the value of more than two hundred thousand castellanos. Many of the emeralds were broken in order to ascertain if they were genuine, as the Indians had other green stones which were used as ornaments. Francisco Pizarro, after gathering this treasure in Coaque and the immediate vicinity, sent ships to Nicaragua with some of the gold crowns and other gold pieces, in order to induce the people to come to the newly discovered coast. Mention is made of the mattresses which they obtained there, made from the silk of the ceiba, or silk-cottonwood tree. They say that many Spaniards who slept on them arose in the morning crippled, with their arms or legs drawn up. All this information is from Pedro Pizarro. In the notes in the Appendix this account of Pedro Pizarro is given in full.[34]

It is related that there the Spaniards first contracted a disease which is thought by Cevallos to have been smallpox. It was called "berrugas," and was characterized by the forming of warts or hard tumors, often resulting in death. This disease still prevails in the valley

regions of Peru. From the report of Xerez, the secretary of Pizarro, we quote concerning Coaque, as follows: "They marched along the shore, finding all the inhabitants in arms against them. They continued their march until they reached a large village called Coaque, which they entered, for the inhabitants had not risen, as in the other villages. There they took fifteen thousand *pesos de oro*, fifteen hundred *marcs* of silver,[35] and many emeralds, which were not then known as, nor held to be, precious stones. Hence the Spaniards obtained them from the Indians for cloths and other things. In this village they took the cacique or lord of the place, with some of his people, and they found much cloth of different kinds, and abundant supplies, sufficient to maintain the Spaniards for three or four years. The governor despatched the three ships from Coaque to the city of Panama and to Nicaragua, to get more men and horses in order to secure the conquest and settling of the land. The governor remained there with his people, resting for some days, until two of the ships returned from Panama with twenty-six horsemen and thirty foot-soldiers. On their arrival, the governor set out, with all of the horsemen and foot-soldiers, marching along the sea-coast, which was well peopled, and placing all the villages under the dominion of his Majesty; for their lords with one accord came out into the roads to receive the governor, without making any opposition."[36]

In the Appendix will be found statements concerning Coaque, from the works of Gomara[37] and Herrera.[38] They all agree in the main, and we learn that the Coaque region was thickly populated, the land well cultivated, and that the people possessed a considerable degree of civilization. Herrera gives an interesting account of the circumstances concerning the finding of many emeralds. It would seem that this entire country was called Calangane, embracing the territory from Atacames to Salango. In a statement found in the "Relation of the First Discoveries of Francisco Pizarro and Almagro," written apparently in the year 1526, and signed by Juan de Samanos, we read that three Indians who were taken captive appeared to have come from a land and town that was called Calangane, that the people in that land were of more character and better behavior than Indians, because they were of better achievements and color, and very intelligent, and they had a speech like Arabic, and that it appeared that they had under subjection the Indians

of the territory above mentioned. They had many domesticated animals, made cloths of wool and of cotton, were good gold and silver smiths, and had agricultural tools of copper and other metals. They had their towns well laid out in streets, with many kinds of gardens.[39]

On the map of Diego Ribero, believed to date from the year 1529, this coast is given; Cape Pasado appearing under the name C. de la Bueta, or Cape of the Return, indicating the point from which Ruiz returned. On the map of Sebastian Cabot, of 1544, Coaque is shown, as well as Pasao or Pasado, and B. Decara, which is, of course, the Bay of Caraques.[40]

Continuing our journey up the coast, we were obliged to go up the Coaque River four or five miles in order to ford the stream, the tide being too high to cross the river at its mouth. All along the banks we saw traces of antiquities, and one vessel which we found is hourglass shaped, similar to those from Cerro Jaboncillo, while the way in which the two sections are joined only occurs, to our knowledge, north of Coaque, and is found frequently in the pottery vessels from La Tolita. This subject will be treated in the section on ceramics. Pedernales Point is known locally as the Punta de Dos Frailes, on account of the two jagged rocks which are at the point (see Plate XIV for a view taken between Coaque and Pedernales). We remained here several hours for the tide to go down, and found numerous potsherds of brown and red ware in the deposits of the terraces along the shore, similar in character to those found along the Esmeraldas coast. The northern side of Pedernales Point consists of a number of points around which it is impossible to go when the tide is high. They form a series of small coves bordered by stone cliffs from forty to fifty feet in height. There is no détour around the point, and no escape if one is caught in the coves by the rising tide. We rounded several of them while the waves were still breaking, and then had to wait another hour, at a small stream called Tachina, for the tide to run out sufficiently to allow us to ford it, as at the most shallow point there are dangerous quicksands, and the crossing must be well at the mouth of the stream, really in the ocean. From this stream the character of the coast changes considerably, to the northward, and the irregular rocky bluffs almost entirely disappear. Beginning here, is a high diluvial

bank forty or fifty feet in height. A half-mile to the north we come to the small town of Pedernales. Eastward from this region, and north of the hills of Coaque, the land appears to be more level and less broken. Near the town itself, antiquities were frequently found, but we were unable to gather anything of importance during our short stay here.

COJIMIES. From Pedernales northward towards Point Surones, which, according to Wolf's map, is nearly eight miles distant, although in reality it cannot be more than six, as we made the distance in three-quarters of an hour on horseback, the bluffs are more rocky in character and slightly higher than at Pedernales. Beyond Surones their height rapidly decreases, and entirely disappears two or three miles beyond. From this point, as far as the Mompiche Mountains in Esmeraldas, the land along the shore is low and flat. We went as far as Cojimies, a distance of about twenty miles from Pedernales, in three hours. Cojimies is at the mouth of the Cojimies River, which here has a width of more than three miles, and contains the large Island of Cojimies. The southern channel forms the boundary-line between the province of Manabi and Esmeraldas. The Cojimies River, near its mouth, really forms a great inland bay, which extends southward to nearly opposite Point Surones. The Estero Salado, which flows into this bay at its southern end, is, at a point opposite Arrastradero, only a little over a mile from the ocean, and a canal here would make an island of this whole territory. Arrastradero is about three miles north of Pedernales. Into this great bay a considerable number of small rivers empty, and the banks of several of these streams on the northern and eastern sides of the bay were examined in 1907 by Mr. Niendorff, who came as far as the hacienda of Guadual, about four miles east of Cojimies. Mounds were seen between Daule and Camanga, and broken pottery was observed all along the northern and southern shores of the river, for a distance of more than fifty miles. We were told that objects of gold have been frequently found. From the evidence obtained, it seems certain that this entire region was thickly populated in pre-columbian times; but excavations will be necessary, however, to secure any collection for a study of the archeology.

Cojimies was a town of considerable importance in precolumbian times,[41] but at present the settlement is quite insignificant, containing only a dozen or more houses. It is a rich agricultural region, and has a good harbor. The archeological remains which were found in the vicinity of Cojimies, and up the river along the banks of its tributaries, decidedly indicate that the country belonged to the more northern Atacames and La Tolita culture; hence this region will be treated in the succeeding monograph, to be devoted to Esmeraldas. We may mention, however, that large shallow bowls, supported by five hollow feet, are found in this region, and that we have a similar bowl from the province of Esmeraldas. No vessels of this description have been obtained or observed from below the Cojimies River.

MONTE CRISTI. We shall now return to the region of the hills. The town of Monte Cristi is nestled at the northern base of the hill of Monte Cristi, and is in the gray and desert-like zone of Manabi. General conditions here are quite like those in Manta, except that Monte Cristi is slightly higher in altitude. On Plate XV we give two general views of the town, looking south. In one will be noted a bank of fog which almost nightly covers the hill, and often descends to the town itself, forming a slight drizzling mist. As a result of this fog, the top of the hill, like Cerro de Hojas and Cerro Jaboncillo, is covered with a dense tropical forest. Unlike the other hills, however, we were informed that no ruins or antiquities of any sort are to be found on its summit or on any of its spurs. On the same plate we give four other pictures, taken in Monte Cristi. One is a snapshot of a procession taking place during the Festival of San Pablo. As the people of this province have lost almost entirely aboriginal customs, and inasmuch as our work did not admit of any detailed study of the people, we shall not attempt to give any account of them and their mode of life. We give, however, on Plate XVI, four views of different kinds of houses, supplementing those which were published on Plates I and II of the preliminary report. We repeat, quoting from the first report, that nearly all the houses are raised on poles, and are made of bamboo, with thatched roofs.

ARCHEOLOGY

EXCAVATIONS AT CERRO JABONCILLO. As we have before stated, the Expedition of 1907 devoted itself mainly toward an exploration of Cerro Jaboncillo and the region in the immediate vicinity. Cerro Jaboncillo, with its series of flanks stretching out in all directions, is about fifteen miles from the coast and a few miles to the west of Porto Viejo. To the south is Cerro de Hojas, which is really part of the same range of hills, the two being separated by a deep ravine. On Plate X, in a view of the inner part of Manta Bay, these hills are shown indistinctly in the background, at the right of the picture. A view of Cerro de Hojas, looking nearly south from our observatory on a spur of Cerro Jaboncillo, is given on Plate XVIII. Cerro Jaboncillo has an irregular, undulating summit of perhaps a hundred acres in extent, with numerous spurs radiating in different directions, and of lesser height. Cerro de Hojas is merely a long, narrow, irregular-shaped ridge about a mile in length, and it has also a number of spurs on either side, but of less prominence than those of Jaboncillo. Both ranges are from fifteen hundred to sixteen hundred feet in height. We found that Cerro Jaboncillo once contained a considerable population, and it was probably the more important site of the two hills.

We did but little excavating in Cerro de Hojas, but in Cerro Jaboncillo numerous house-sites were cleared of the dense tropical jungle, and in many of these house-sites, locally known as corrales, we carried on extensive excavations. On one of the western flanks of the hill we discovered and excavated a small mound which will be described as Mound 1. On the summit of the hill were two large mounds, named respectively Mound 2 and Mound 3. These mounds were thoroughly explored down to hard-pan. One of these, Mound 2, was connected with the story of a circle of seats surrounding a stone table, and there were still a number of fragments of seats scattered about on its surface. In the following report of our excavations the corrales have been numbered, for convenience, and these numbers were applied to them as our work progressed, being cut in a tree near at

hand for identification. Scores of corrales were visited which were not cleared of the forest, and only superficially explored. Those which were cleared and excavated appeared to be typical of all of the house-sites in this region. In the plains between Picoaza and Porto Viejo, near Papagayo, there was formerly an ancient settlement, but we saw no corrales there. A number of mounds exist in the neighborhood, which have yielded antiquities. One of these mounds along the road-side is given on Plate XVII. A few objects from these mounds will be described in the section on ceramics, and are illustrated on the plates devoted to pottery. In the following section we give a transcript of the field-notes of our excavations, taken by Mr. Pepper.

MOUND 1. This mound was on an arm of Cerro Jaboncillo, and was low and irregular in form. Directly east are corrales 39 and 40. The average height of the mound above the general surface was not over 2 feet (60.9 cm.), and its original size seemed to be marked by two monoliths which are at the northwestern and southeastern ends. The first-mentioned monolith is a flat, irregular piece of sandstone 2 feet 10 inches (86.4 cm.) in width at the widest part, and 6 inches (15.2 cm.) in thickness. It rises to a height of $2\frac{1}{2}$ feet (76.3 cm.) above the surface, and tapers upward from the point where it enters the ground. The distance from this stone to the one opposite is $31\frac{1}{2}$ feet (9 m.), which is the approximate diameter of the mound. The second monolith is cylindrical in form. It is of coarse sandstone 1 foot (30.5 cm.) in diameter, and $2\frac{1}{2}$ feet (76.3 cm.) above the surface (see Plate XIX). There are edges of stones in various parts of the mound, but the two standing ones just mentioned are the only ones that were, without question, in their original positions. Work was started at the western side, and nothing was found until a point 6 feet (1.8 m.) east of the monolith was reached. Here a deposit of ashes was found, and in it were the bones of three human skeletons. With them were numbers of potsherds and a few fragmentary pottery heads. The ashes were confined to the area of the burials, and in no other part of the mound did ashes appear. In the central part of the mound, in the general digging, a very small stone seat was found. It was broken, but the pieces were together. It is the smallest stone seat that has come to our

notice. Fragments of two stone slabs were found in the general work in the western and central parts, also quantities of potsherds, and pieces of pottery figures. Nothing of importance was uncovered until the eastern part of the mound was reached. At a point 8 feet (2.4 m.) from the cylindrical pillar the first objects of a deposit were found. These were two stones on edge; they were thin pieces of sandstone, and their general direction was north and south. A pottery figure was found 18 inches (45.7 cm.) below the surface and between the stones just mentioned, one of which was on the north and the other on the west side of it. Directly west of, and almost against, the flat stone mentioned as the one on the west of the pottery figure, and at a depth of 10 inches (25.4 cm.) from the surface, were a hammer-stone, a stamp, and a pottery face. Directly east of the southern stone of this group, and within an inch of its side, a pottery jar was found, 15 inches (38.1 cm.) below the surface. Near it was a pottery head. The jar was struck by a bar which was being used by a workman, and part of the rim was crushed. The head just mentioned was found below the jar with the fragments of the rim, and it seems quite probable that it had originally rested in the jar, which was in an upright position. In this jar were six clay figures, all of which were in a fragmentary condition. Most of them were human heads. The finding of so many imperfect pieces on the surface and in the general digging aroused our interest, but the discoveries of similar conditions in what was evidently a ceremonial deposit presented a problem worthy of consideration. Shortly after this jar had been removed, a second one was uncovered 3 feet 8 inches (1.1 m.) from the cylindrical pillar, and its flaring rim was only 4 inches (10.2 cm.) below the surface. It was near a flat stone which was on edge, and stood between the jar and the pillar just mentioned. Although the general appearance of the vessel is that of a deep jar, it is evidently an incense-burner (see Plate XIX). The rim at the flaring end is perforated with large holes, and on the exterior, near the opposite end, there is a figure in high relief. It is that of a human being with an animal's head, and is placed in such a way as to show that the rim-end is in reality the base of the vessel. A hole is through the small end, and there has evidently been another part to the vessel. Twenty objects were found in this jar. Of these, two were

stone,— a polished black pebble and a small sandstone ball,— the rest were of clay. The pottery consisted of human and animal heads and figures, almost all of which were in a fragmentary condition. In the upper-central part of the vessel was a human figure placed in such a way that it was almost even with the rim. The head had been broken from the body, but otherwise the specimen was perfect. It was in an upright position, and the figures were packed around and below it. This was the second deposit in which imperfect objects had been placed. Two inches (5.1 cm.) west of the jar, a large pottery head was found, and in excavating the remaining part of the mound several small pottery heads were uncovered, two being near the base of a large stone which was in front of the stone pillar.

In clearing the earth from about the monolith, at the southeastern part of the mound, two flat stones were found on edge. They extended from the pillar toward the south, and were somewhat out of line, but had probably formed a part of a wall. They evidently connected with another flat stone, which was 4 feet 5 inches (1.3 m.) from the stone pillar; there was a break of 1 foot 9 inches (53.3 cm.), and then another flat stone on edge. The last two stones were 2 feet (60.9 cm.) long, and were at right angles to the others. They had no doubt formed an entrance to the mound. To the north of the stone pillar there were two large stones, and from other points on a line with them, other stones had been taken. The stone pillar rested against the outer edge of one of the largest stones of this line, and it is probable that there had once been a wall which crossed this end of the mound. That this mound was built for burial-purposes there can be but little doubt; but the results were rather surprising, inasmuch as only three skeletons were found. Under ordinary conditions, one would expect to find objects of some kind buried with the dead; but in this case it was hard to say whether the crude pieces of pottery had been placed with them, or thrown with the earth that was piled about and over them. The offerings found were in the opposite side of the mound, and they were either imperfect or of very crude ware. It showed conclusively, however, that the broken figures were not confined to the surface. They had been used, in two instances at least, by their owners in certain ceremonies which were evidently connected with the

dead. Aside from these and a few minor considerations, the mound had furnished but little general information. It had been built from soil gathered no doubt in the vicinity, and no attempt had been made at forming layers of different materials. There were no baked floors, and no layers of ashes or other materials, the only ashes found being in the burial-space.

MOUND 2. A view of this mound is given on Plate XX. It was on the land of Don Celso Velasquez, a part of the western slope of Cerro Jaboncillo. The surface was irregular at this point, and near the edge of a deep ravine which separates Cerro Jaboncillo from Cerro de Hojas. Between the mound and the edge of the cliff is corral 45. Northeast is a large mound (Mound 3), where the "great circle of stone seats" is said to have stood. Opposite, on the Cerro de Hojas side, is the "Trapiche," a hacienda owned by Don Antonio Segovia. Mound 2 and the vicinity had been used as a cornfield by the present owner, and was therefore practically free from underbrush. It was of rectangular form, and sloped from the top to the base. The sides had been worn down considerably from the tilling of the soil, as well as by weathering. The upper surface measured 30 by 50 feet (9 by 15 m.), the longer axis being east and west. The base-lines proved to be 50 by 70 feet (15 by 21 m.). These measurements are, of course, only approximate, but they are as near to the original ones as could be obtained from the condition of the mound. The excavations showed that the natural surface of the ground sloped toward the edge of the cliff. At the eastern end of the mound the soil of the made part was only a little over 3 feet (91.4 cm.) in thickness, whereas at the western end it was almost 6 feet (1.8 m.) thick. In building the mound the surface had been levelled with earth and a floor of baked clay placed over it. This floor, when uncovered, was uneven, due no doubt to pressure and the natural settling of the made part beneath it. It ranged from $3\frac{1}{2}$ to 4 feet (1.07 to 1.2 m.) below the surface of the mound. This floor averaged 4 inches (10.2 cm.) in thickness. The under part was a black, partly-fired layer of clay with a hard-baked layer of red clay, averaging a little over an inch in thickness above it. There was a second floor of the black clay, partly baked, which ranged from 2 to $2\frac{1}{2}$ feet (60.9 to

76.3 cm.) below the surface. Our excavations revealed the structure to have been a burial-mound.

Work was begun on the southeastern end of the mound. The first object found was 18 inches (45.7 cm.) from the surface. It was a disc of obsidian, having a hole drilled near the edge (see illustration and description farther on). The earth around it showed no signs of ashes, nor fragments of human bones, and, as nothing was found with it, it was no doubt one of the isolated objects such as were found in other parts of the mound. In working down the western surface a stone animal figure was found. Its legs were drawn up, and the hands were against the chin (see No. 6, Plate XLVI). It was of the type of crude carvings such as are found near Manta. Near this figure there was a deposit of crudely-worked metates 3 feet (91.4 cm.) from the surface. In the deposit there were twenty-four perfect metates and ten fragments. A number of flat stones and three stone mullers were with them. Two of the mullers were rough, but one had evidently been used.

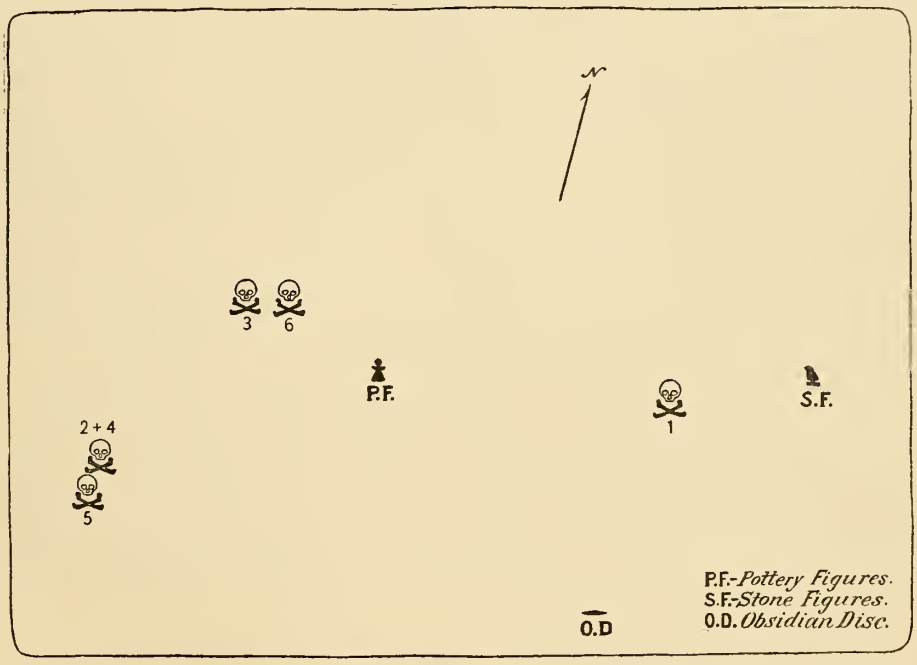


Fig. 1. Plan of Mound 2.

The first skeleton was that of a child, uncovered 4 feet (1.2 m.) below the surface. The face of the skull was toward the east. No other bones of the body were found, but it is quite probable that they had decayed. The skull was covered with a bowl of black-ware, which, although crushed, protected it to some extent. The position of the skull, which was broken, and the bowl which covered it, may be seen in Plate XXI, which was taken while the objects were *in situ.* The bowl was the only object with the skull.

Skeleton 2 was found in the western part of the mound. In caving the bank the front of the skull was uncovered 4 feet (1.2 m.) from the surface. The skull was that of an adult, and was placed in an upright position. There was no lower jaw with it, and no bones of the body were found. A little over 1 foot (30.5 cm.) south of the skull was a layer of wood-ashes, but there were none near the skull itself. The head was facing the west.

Skeleton 3 was represented by the arm and leg bones, no other bones being in evidence. They were 4½ feet (1.4 m.) below the surface, and were grouped as though the body had been doubled up when it was buried. A small slicker or polisher, used in pottery-work, and a fragment of a sea-shell, were found with the bones.

Skeleton 4 was represented by the skull and some of the large bones, 5 feet (1.5 m.) below the surface. The face was toward the northwest, but was inclined downward, the head lying on its right side. Nothing was found with this skeleton.

Skeleton 5 was that of a child, 5 feet (1.5 m.) below the surface. The skull was broken, and disintegrated to such an extent that the position of the face could not be ascertained. The child must have been about six years of age. No specimens were found with this body.

In the west end of the mound there were places which showed a filling with cracked stone. Two of these were particularly noticeable, being 1 foot (30.5 cm.) in diameter, and 3 feet (91.4 cm.) in depth. They were within 1 foot (30.5 cm.) of each other. The holes had been dug after the mound was completed, and may have served as foundations for stone idols.

In caving down the bank near the central part of the mound a head of a pottery figure was found. It fell with the earth, and inspec-

tion of the place whence it came showed that a portion of a figure had been broken by a stroke of the bar. Surrounding this figure, which proved to be that of a man with a monkey-like head, were a number of fragments of other clay images. When the pieces of the figure had been removed, it showed that it had one hand on its head and the other on its privates. The figure, however, had been badly broken by the blow. A large human figure was lying in a slanting position, resting on its back; the head was missing, and the neck portion was within an inch of the surface. In uncovering the body the head was found resting against the legs of the figure, at the south side. It was standing upright, and on the head there was the representation of a crown with a human face on the front. This had to be removed before the body of the figure could be fully recovered. When it could be taken out, it proved to be sitting in a seat similar in shape to the stone ones. Grouped about this figure were fragments of a third, also of human form; but when the parts could be collected, it proved to be very crude as compared with the other two. Just north of the large figure were two bowls in a fragmentary condition, and other fragments of pottery. There was no evidence of a burial, and no regularity in the arrangement of the objects. In this deposit, another strong verification of the rite of breaking, killing, or whatever it may be called, was shown. The pieces had been broken intentionally before the burial, and that fragments were missing may well be attributed to carelessness in handling the figures or gathering up the pieces after they had been broken.

A stone figure having the form of a human being, with large pendant breasts, was found 2 feet (60.9 cm.) below the surface, in the eastern part of the mound. The body was resting on its face, and the upper part was missing, when the specimen was found. About 1 foot (30.5 cm.) below the female figure, and the same distance east of it, a large stone bird was found. It was lying on its side with the bill up, and the breast had been broken before it was buried. The manner of clipping off large surfaces on this and other figures seems to show, without doubt, that it was intentional, and it may have been a part of their religious observances or sacrifices. Directly under the stone bird was a second one on its side, and the upper one was lying on it. The

second bird rested on the rock which formed the natural hard-pan. A large natural concretion, which may have been used as a hand hammer-stone, was found near the lower bird and on the same level. North of the two birds, and close to them, was the base of what had probably been a seat of the puma-type. The upper part was missing, only a few inches of the base being in evidence. The break was evidently along the line of natural cleavage, as the surface was as smooth as those which had been worked. There was no floor over the place where the birds and other objects were found, and there was no evidence that there ever had been one. From the position of the pieces, it would seem that they had been put in place after the mound had been completed, as had, no doubt, some of the other deposits.

Northwest of the place where the stone specimens were found there was a platform of clay, which was 6 inches (15.2 cm.) from the present surface, and extended to a depth of nearly 3 feet (91.4 cm.). It was 3 feet (91.4 cm.) square, as near as could be ascertained, and was composed of thin layers of clay that had been burned to a bright red color. At the southern limit of this platform, and connecting with its base, was a jar-like opening 1 foot (30.5 cm.) in diameter at the top, and increasing in size toward the bottom. A stroke of the bar in caving the bank broke the jar, but enough of it could be seen to show that it had been made in place. Nothing was found in the jar but black earth, probably the remains of ashes. Owing to the fact that a similar platform and jar were found in another mound, it will be well to defer any further consideration of this interesting discovery until comparisons can be made.

Skeleton 6 was that of a child, its distance below the surface being 4½ feet (1.2 m.). The skull was crushed, and fragments of the bones of the body were beneath it. Nothing was found with this skeleton, and, as in the case of most of the other burials, it was lying in the upper layer of the hard-pan.

In the western end of the mound, at a depth of 2 feet (60.9 cm.) below the surface, there was a deposit of twenty-five irregular pieces of obsidian, confined to a small space. Nothing was found with them.

All of the skulls found in this mound were, whenever it was possible to examine them, asymmetrical. All were badly decayed, and

were so wet when taken from the earth that they almost invariably fell apart soon after they were removed.

The results of the removal of the material which formed Mound 2 showed that it had been made of earth which was no doubt taken from the immediate neighborhood. It was not stratified; the only evidence of such a course was in the two floors and an occasional stretch of half-baked clay or ashes. No layers of ashes or pottery-bearing earth were found, although potsherds, and fragments of stone implements, were uncovered in all parts of the mound. Stone specimens predominated. Besides the large stone figures noted, there were many fragmentary pieces, such as mullers, hand hammer-stones, flint knives, fragments of pestles, and many obsidian flake-knives. There was found in the way of personal adornment, one olivella-shell bead, and the obsidian mirror may have been used as a breast-ornament by members of the priesthood. No bone instruments or implements were found, at least none that could be preserved. The mound furnished, however, several objects that will help to show the art-work of the old people of this region. The two pottery figures found in the cache near the surface were good examples of this class of work; and the human figure,—showing the use of the seats by a member of the priesthood, if not, indeed, a cacique,—as a complement to the large series of stone seats and the small pottery one, was another step toward the solution of the problem of the seats. The stone birds were the first perfect ones seen. The mound was dug to hard-pan in all parts, and then levelled.

MOUND 3. This mound was situated on the land of Don Celso Velasquez, 45 feet (13.7 m.) north of Mound 2. In appearance it was similar to its sister mound (see Plate XX), but its longer axis was north and south, instead of east and west, as was the case with Mound 2, and it was also a burial-mound. The surface of the mound sloped from the north end southward. The actual slope may be accounted for, to some extent, as the mound had been used for planting, and had been worked down on its lower end, that toward the south, thereby creating a natural drainage slope. Owing to the contour of the natural surface, the mound had to be raised higher at the northern end, and the greater height gave the mound the appearance of being

much higher at the northern surface than it really was. The mound was of the same type as Mound 2, and the sloping sides had suffered in the same manner as that noted in the description of the other mound. The upper surface was 25 feet (7.6 m.) by 45 feet (13.7 m.), the longer axis being north and south. The base of the mound was 45 feet (13.7 m.) by 65 feet (19.8 m.). When the work had been under way for a short time, it was possible to take measurements of the western face of the mound. These were taken when the wall of the excavated space had reached the edge of the upper platform. It was then found that the natural surface was higher at the northern than at the southern end, owing to the fact that the ground sloped away at that end, whereas at the opposite end the space between the mounds had been filled in to a height of over 3 feet (91.4 cm.). The measurements showed a filling of 5 feet (1.5 m.) at the northern end of the mound and 7 feet (2.1 m.) at the southern end; that is, at the present time there remained a mound of earth, that had been built 5 feet (1.5 m.) at one end, and increasing to 7 feet (2.1 m.) at the opposite end.

Work was begun on this mound on three sides — east, west, and south — at the same time. The first objects of interest found were at the base-line of the mound, midway between the corner poles on the south side, and only a few inches below the surface. First a number of natural concretions were taken out, then followed several broken clay figures. These two concretions were of sandstone and had depressions in the flat surface; they had the appearance of mortars, and may have been used for this purpose. There were fragments of manos, pieces of sea-shell, flakes of greenstone, obsidian flake-knives, and fragments of pottery. The deposit covered several feet, and had the appearance of a refuse-heap. A perfect stone mortar was found 3 feet (91.4 cm.) south of the mound-line, but it had no doubt been a part of this deposit. A bowl in a fragmentary condition was found near the mortar, and in it there was a double globular concretion of blue chalcedony. South of this deposit there were three stones on end; one of them protruded from the surface about a foot, and extended to a depth of a foot and a half below the surface. It could not be ascertained whether these stones were related in any way with this mound or the other one, which was but a short distance to the south.

The space between the mounds where these stones were standing was perfectly level. While these stones and the space around them were being examined, a number of deer-bones were found in the south-western corner of the mound. They were within a few inches of hard-pan, and were well preserved. With them was a pottery whistle of human form, and a cylindrical pottery stamp was near the whistle.

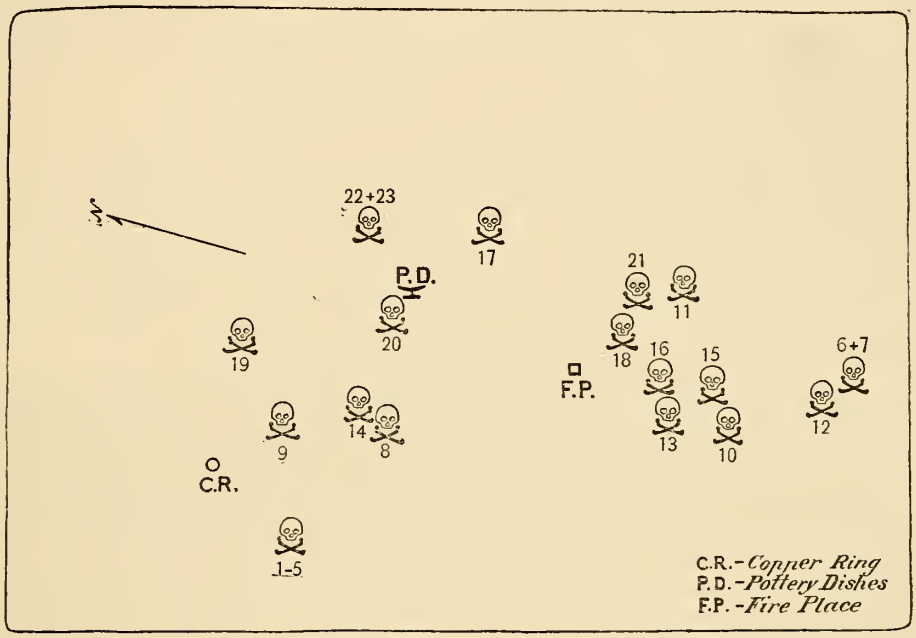


Fig. 2. Plan of Mound 3.

Skeleton 1 was that of an adult, lying at a depth of 5½ feet (1.7 m.) below the surface. The skull had disintegrated to such an extent that the position of the face could not be determined. With the body were three pottery stamps, and a black-ware vessel of the bowl-type having a somewhat flaring base. Two sea-shells were found near the stamps. In digging beyond and under the first skull a second one was found directly beneath it. This showed that there had been a group-burial. Skull 2 was also that of an adult, and was in the same condition as the first. Further investigations showed a third skull which belonged to this group. It was on the level of the second, and 8 inches (20.3 cm.) from it. It was that of an adult, and with it

were a broken black bowl and two spindle-whorls. After skull 3 had been removed, a fourth skull was found directly east of the first and second, and so close to them that it almost touched them. Skull 4 was that of an adult, and near it, in fact partly covering the skull, was a large, crude red-ware bowl. Resting against this bowl, on the south side, was a fragmentary vessel the top of which was corrugated in such a way that it had the appearance of a grater. A small pottery stamp was also found near the skull. Continuing the work toward the east disclosed a fifth skull. It, too, was that of a person of middle age. It was 6 inches (15.2 cm.) east of the fourth, and on the same level. Nothing was found with skull 5, and this one was the last of the group-burial. The bones of the skeletons were so much decayed and so soft, that they could be crushed between the fingers. Everything in the mound seemed to have taken up as much moisture as was possible, and this made it difficult to remove intact even the pottery vessels.

In caving down the bank a stone figure of human form was found. It was that of a female, and was seated on a sort of rounded base. It was near the central part of the wall-line only 18 inches (45.7 cm.) below the surface, and it was just below the line of the western crest of the mound. On the same line, and about the same distance below the surface, but nearer the southern end of the mound, a figure of greenstone was found with a tail curled over its back and a hole drilled in the top of the head. Near it a small stone bird was found.

When the mound was reached the following morning, the men had cleared away the earth that had been thrown down the night before, and in it had found a few fragmentary clay figures and one complete figure, which had the arms folded over the breast and was wearing a breech-cloth. It was found near the west-central part of the mound, and within a short distance of the seated female figure which was thrown down with the earth.

In working into the south face of the mound an irregular wall of stone appeared. It began at the eastern corner of the upper surface, and extended 18 feet (5.5 m.) toward the west: in other words, this irregular mass extended almost across the upper part of the mound.

From the positions of the stones it would seem that at the southern end, at least, they had formed a stairway which led to the upper part of the mound. The disarrangement of the stones was due, no doubt, to earthquakes and to roots, some of which extended to the very base of the mound. A similar mass of stones was noticed in the western end of Mound 2, but there were so few that no special notice was taken of them. Originally there may have been more with them, and those near the surface may have been removed by the owner of the land.

Skeletons 6 and 7 were found together in the southern part of the mound, 6 feet 4 inches (1.9 m.) below the surface. The bodies were those of adults, and around them were ashes. These were especially in evidence on the western side. A pecten-shell, a pottery bird, a fragment of a pottery-shell, and a number of potsherds, were buried with them.

A little west of skeletons 1 to 5 a small pottery disc of red-ware was found, and at a distance of 6 feet (1.8 m.) to the north of this group a tripod bowl of black-ware was uncovered. It was resting on the hard-pan. About the same time that these specimens were found, a crude, broken animal figure of stone was uncovered near the surface, at the southwestern corner of the mound.

Skeleton 8 was 6 feet (1.8. m.) below the surface. A small bowl and a broken jar with flaring base were found a little to the west of the skeleton. Over skeleton 8, at a depth of 2 feet 4 inches (71.2 cm.) below the surface, there was a short stretch of baked-clay flooring, similar to that noted in Mound 2. Up to the time that this flooring appeared there had been no such layers in evidence; after this discovery, the face of the cut was smoothed, and it was found that there had been a floor the whole length of the upper part of the mound. It was greatly decayed, and in some places could not be seen at all, but there were no evidences of there having been excavations in these places. The floor was black beneath and bright red above, and maintained an average depth of $2\frac{1}{4}$ to $2\frac{1}{2}$ feet (68.5 to 76.3 cm.) below the surface throughout the length of the mound at this point.

Skeleton 9 was at a depth of about 5 feet (1.5 m.) below the surface. It was that of a person under twenty. This burial was just

east of skeletons 1 to 5, and may have been a part of the same burial.

Skeleton 10 was that of an old person, and its distance below the surface was 6 feet (1.8 m.). With it was found a bowl which had a large flaring base.

Skeleton 11 was that of an old person, and this was no doubt an intrusive burial. The bones ranged from 3 to 12 inches (7.6 to 30.5 cm.) below the surface. They extended for some distance eastward from the point where the measurements were taken, and there were a few potsherds among them.

A flat, circular ornament of copper was found 6 feet (1.8 m.) below the surface. It was lying in the earth with nothing near it, and there were no evidences that there had been a burial at that place.

Skeleton 12 was that of an adult. It was 6½ feet (2 m.) below the surface. With the body there had been buried a small bowl, which was in a fragmentary condition when found. A bowl which had a large flaring pedestal-base was also with it. A number of sea-shells were scattered among the bones, and one large shell had a hole drilled through the upper part. A tripod bowl completed the list of the objects found with the skeleton.

Skeleton 13 was near the central part of the face of the cut, the depth below the surface being 6½ feet (2 m.). With this body were two bowls and the base of a third, also seven pottery fishes which were of the same size, form, and ornamentation: they were grouped about the skull. Near the fishes were six spindle-whorls and a flat pebble. After the bones of the skeleton had been removed, a copper ring was found. It was at least 2 feet (60.9 cm.) west of the mass of bones, but was probably buried with the body.

Skeleton 14 was 5 feet (1.5 m.) below the surface. With this were a tall, cylindrical pottery jar, a large olla in a fragmentary condition, a small bowl, and fragments of several other pottery vessels. A bead of greenstone, deer-bones, and several fragments of large massive bones, probably of the whale, were also found among the vessels. The skull and some of the pottery pieces were covered with a fragment of a very large olla. Two or more skeletons were together in this burial, but the bones had disintegrated to such an extent that

the exact number could not be learned. After this deposit had been removed the bank above it was thrown down, and from a point just above the burial a pottery figure of human form was found. When it was cleaned, it was found to be filled with white ashes, although there were no ashes about it. Some of the material was saved for analysis. It was practically free from sand, and had evidently been placed in the figure before it was buried.

Skeleton 15 was 6 feet (1.8 m.) below the surface. With it was a small bowl, and a vessel with a flaring pedestal-base.

Skeleton 16 was 7 feet (2.1 m.) below the surface. With it was buried one of the bowls having a flaring pedestal-base, and another, of the same type, which was covered with a bowl of ordinary type. These two pieces were perfect, but there was nothing in the lower one; if there had been anything in it when it was buried, it must have been of a perishable nature, as no vestiges of it remained.

At a point 45 feet (13.7 m.) from the northwest corner and 31 feet (9.4 m.) from the southwest corner, an oven-shaped receptacle was found. It was 2 feet (60.9 cm.) in width at its widest part and 2 feet (60.9 cm.) in height. The top was 5½ feet (1.7 m.) below the surface, and its base was resting on a layer of light-colored clay. The top and sides were rounded, giving it the form of a beehive, and the base was flat. It was made of baked clay, and there was a break in the top, which had probably been an opening. Owing to its condition at this point, its exact form could not be determined. The interior, from the base to the upper part, was filled with a deposit of extremely black material, which contained charcoal. The contents were unlike any other deposit found in the mound. It was damp at the time it was discovered, and, in taking it away, the hands were covered with a black grime which was hard to remove. From its appearance it must have been an oven of some kind, but there was nothing in the material which filled it to give a clue to the nature of the material that had been burned.

Skeleton 17 was at a depth of 6 feet (1.8 m.) below the surface. The bones of the body had almost disappeared, but one of the bones had been calcined. In the mass of discolored earth a deposit of large and small shell beads was found. They were joined in such a way

that there was no doubt they had been strung when they were buried. Nothing else was found in the area of discoloration. Directly above this burial a large hole in the mound was found, and from it a *culebra cyama* soon afterwards crawled. The snake is one of the most venomous in the region, and this one measured over 5 feet (1.5 m.) in length. Further digging proved that its burrow extended over fifteen feet in a southwesterly direction. These homes of burrowing animals, with the roots, had displaced many of the specimens, and had broken others.

Skeleton 18 was one with which had been buried a great many objects. The skull was at a depth of 5½ feet (1.7 m.) below the surface. The first object found, the one that gave the first intimation of a burial, was a conch-shell which had a hole drilled in the upper part. The lip of the shell had been cut away, and with the shell there was a flat piece, also of shell, which fitted the bottom of the conch perfectly, and had been used as a cover. Just east of these pieces there was a deposit of small specimens, which contained three spine-shells, two bone awls (one discolored with copper salts), six spindle-whorls of clay, two pottery smoothers, an Amazon-stone head, a disc of mother-of-pearl shell, four smooth chalcedony pebbles, three flat worked pieces of sandstone, and a number of pieces of bone implements. With the deposit was also a shell of the cowry-type which had a hole drilled in the top, and a piece of pottery was fitted to the under part. This piece was held in place with a dark yellow material which may have been gum of some kind. In working the earth away from the right (west) side of the skull, a copper ring of an irregular circular form was found. On the left (east) side of the head were six copper rings of the same size as the one found on the opposite side, but better formed. One of the rings had a serpentine bead strung on it. With the copper rings was one of gold, of the same size as the copper ones. All were corroded and in a bad state of preservation. These rings were near the lower part of the skull, and were probably ear-ornaments. A shell bead made from half of a cone-shell, and having a cut across one surface, was found west of the head. South of and above the head was a jar of black-ware with eight heavy corrugations on the cylindrical part. The base of this jar was flaring and hollow. A second jar, of similar color and form, was found just west of the first. It had three corrugations encircling the

upper part. With these jars were fragments of other vessels, most of which were bowls. Northwest of the skull there was a bowl of red-ware, having a flaring pedestal-base. East of this bowl was another, of black-ware; and resting against it, on the west, was a pottery figure of human form. It was a large figure on a pottery seat, but somewhat disintegrated when found. Above this figure, and a little to the south of it, was the third jar, of cylindrical form. This one had four corrugations on the cylindrical part, and was also of black-ware. West of the human figure, and against it, was another vessel, which proved to be in the shape of an animal. It was of black-ware, with four legs; and a high cylindrical vessel formed the upper part. It was badly broken, and may have been in a fragmentary condition when it was buried. All of the corrugated jars were lying on their sides, and nothing was found in them. The skull was that of a middle-aged person, and there were a number of bones about it. It was partly covered with a bowl, which had been crushed with the skull beneath it. As in the case of the other skeletons in this mound, the bones were so soft and decayed that it was impossible to preserve them.

While the material with skeleton 18 was being removed, the workmen found a large pottery figure of human form in the east-central part of the mound. It was found in caving the bank, and was quite near the place where skeleton 17 was found. A small pottery jar not over 3 inches (7.6 cm.) in height, and having a figure on the front, was found not far from the human figure, and near it were two pottery bowls with flaring pedestal-bases. No bones were associated with these pieces. In the northwestern part of the mound the workmen, when caving the bank, found a vessel of red-ware with flaring top. The base was in the form of an animal which suggested a turtle. In the same section a pottery arm was found. It was well modelled, and was decorated with bands of green and yellow paint.

Skeleton 19 was lying directly below a bed of ashes of a white color. Its depth below the surface was 5 feet (1.5 m.). With the body were found a pottery whistle shaped like a shell and having a hole in the side, a complete though broken olla, two cone-shells each with a hole in the top, a vessel of black-ware with a raised knob on

the side, a bowl with flaring pedestal, two mother-of-pearl shells, a pottery figure of human form, a whistle in the form of a hunch-backed human figure, a small pottery vessel with a bird's head and large beak, and a number of potsherds. When these objects had been removed, it was found that they had been grouped in the midst of a burial of two or more bodies; but, as in the other burials, the bones were so much decayed that it was impossible to tell how many bodies there were. After the above-mentioned specimens were removed, the surrounding earth was cleared away, and a small stone celt was found, a large conch-shell, and a pottery figure of human form playing a pan-pipe. After these were taken out, two cone-shells were found, each of which had a pottery cover on the under part.

Skeleton 20 was 5½ feet (1.7 m.) below the surface, only a few fragments of the skull and bones of the body being found. Nothing was unearthed with it.

Skeleton 21 was 6 feet (1.8 m.) below the surface. The first object encountered in uncovering this skeleton was a pottery figure of human form, found near the skull. This figure was represented as resting on a seat. East of this figure, and placed against it, was a cylindrical jar of black-ware, which rested on its side. The mouth of the jar was toward the northwest. The sides were plain and the vessel was perfectly preserved. Another cylindrical jar, of black-ware with corrugated sides, similar to the ones found with skeleton 18, was east of the one just described. The rim rested on the upper surface of the first one, but its base was much lower, causing it to lie in a slanting position. North of the corrugated jar, and close against it, was an animal jar of yellow-ware. It was in the form of a tiger, and was resting on its left side, on the plain jar first mentioned. Its head was toward the northwest. This jar was perfect when found. Above it was a large land-snail shell. North of the plain jar was the figure of a puma in black-ware. It was a jar with a cylindrical top, and was lying on its side, with its face toward the southeast. This deposit of jars was the most compact that was discovered in the mound, and all were perfect. The human figure was disintegrated, to some extent, in parts; and, owing to the fact that it was saturated with moisture when found, several pieces became detached in taking it out.

About 4 feet (1.2 m.) north of skeleton 21 there was a filled place similar to the ones mentioned as having been found in Mound 2. This one was filled with cracked stone, and extended to a point 5 feet (1.5 m.) below the surface.

Skeleton 22 was at a depth of 6½ feet (2 m.) below the surface. Only a few fragments of a child's skull were found to show the burial; but from the discoloration of the earth it was quite evident, even before the bones were found, that there had been a burial. A large bowl with flaring pedestal was found with it. It was similar to the burial of skeleton 17, where only a few burned bones were in evidence. A number of deer-bones and teeth were found with this interment.

Skeleton 23 was found at a depth of a foot below skeleton 22. The skull was that of an adult, and had been broken by roots which pierced it in a number of places. On the eastern side of the skull a pottery figure was found. It was that of a man, and was the first complete figure with decorations in color that had been found. It had a green band about the neck, and other parts of the body were decorated with green and red paint. South of this figure, and near the side of the skull, an ear-ring of copper was uncovered. Two stone beads had been strung on the ring. One large one was of greenstone; the other, which was smaller, was of Amazon stone. Near one of the leg-bones, south of the head, was a pair of gold pincers, and about an inch below it, a flat circlet of gold. Grouped near the feet of the skeleton, south of the gold pieces, were several bowls. One was of the large flaring-base type; a second was of the same form, but smaller, and with the upper surface of the base decorated; the third had an incised design encircling the outer edge of the rim. Southeast of the head were a number of small cylindrical pieces of hard stone. The ear-ring with the stone beads was resting against the largest of these. A small, cup-like piece of greenstone having a perforation in the rim was also found in this deposit; and near the stone pieces were a number of animal teeth, one of which was that of a tiger, and another that of a bear. A large flaring-base bowl of black-ware, which had been broken before it was buried, was found in a fragmentary condition, the pieces being scattered through the earth on the southern side of the

skull. Some of the fragments had holes drilled in the edges, showing that the vessel had been mended in the usual way. The bones of the body were grouped in a mass under and about the head. West of the skull, and on the same level, was a small pedestal bowl which had a decorated base. It was complete, with the exception of a fragment of the lower part. Resting a few inches from it was a bowl of black-ware having a tripod base. The legs were formed of loops of clay, and were about an inch in height. It was the only bowl of this type found in the mound. Resting against this vessel was a bowl of red-ware, the interior of which was decorated with a painted design. A bowl of black-ware was near the red one, and completed the number of vessels taken from the deposit. This skeleton was one of those found at the greatest depth in the mound. It was 7½ feet (2.2 m.) below the surface.

About a foot above skeleton 22, and extending north and south of this point for a distance of 10 feet (3 m.), was a horizontal layer of white wood-ashes. It averaged 5 feet (1.5 m.) in depth below the general mound-surface, and ranged from 3 to 6 inches (7.6 to 15.2 cm.) in thickness, forming a layer which must have covered a considerable portion of the central part of the mound. It was irregular, but its maximum width was at least 10 feet (3 m.).

One foot below the surface, and at a distance of 38 feet (11.6 m.) from the northwest and 44 feet (13.4 m.) from the southwest end of the mound, a deposit of four shallow, dish-like vessels was found. One of them was in perfect condition, but the other three were only fragmentary.

Directly below the deposit of the four dishes a large vessel of half-baked clay was found. It was at the southern end of a platform composed of layers of the same material. This platform was made by firing successive layers of clay, which formed a stratified block when the work was completed. The lowest layer was about 4 feet (1.2 m.) below the surface. It averaged over an inch in thickness, and was of red baked clay. Superimposed on this were layers of the same material and of the same thickness; these were 1½ feet (45.7 cm.) in thickness. Above this platform-base was a continuation of layers to the thickness of a foot, but these were of black, slightly baked clay. The upper part, which rested on the black layers, was made of the red baked

clay, and was composed of thin layers, which averaged half an inch in thickness. This section was 15 inches (38.1 cm.) thick. The surface of this clay platform was 4½ feet (1.3 m.) long and 3 feet (91.4 cm.) in width, the longer axis running north and south. The top was 3 inches (7.6 cm.) below the surface of the mound. The clay vessel or receptacle was, as already stated, at the southern end of this platform. Its rim was on a level with the under surface of the lowest layer of the upper or main part of the platform, which made it 15 inches (38.1 cm.) below the surface. It was 1 foot (30.5 cm.) in diameter and 1½ feet (45.7 cm.) in depth. The rim was flaring, the sides well rounded, and the bottom, on the inner part, flat. The sides of the vessel, unlike the usual ceramics of the region, were composed of five thicknesses or layers of half-baked clay, showing conclusively that it had been fashioned in the place where it was found. To qualify this statement, it may be said that the rim of the vessel was joined to the lowest layer of the platform, or at least that part of it formed by the thin burnt layers. The inner surface of the vessel was smoothed to some extent, but the exterior was rough. Nothing was found in the vessel, save a quantity of black ashes. There were evidences that materials of some kind had been burned in it, the blackening of the clay being particularly in evidence on the bottom. The position of this vessel in connection with the platform is similar to that noted in the description of Mound 2, where there was a series of baked-clay layers and a bowl placed in the same relative position to them as in the one under consideration. In Mound 3 the bowl was south of the platform, the line following the longer axis of the mound. In Mound 2 the vessel was south of the platform, but in that case it followed the line of the shorter axis. The upper part or rim of the vessel, in each case, was rounded to meet the edge of the lower level of the main part of the platform. In both mounds the vessel was placed at the southern limit of the platform, which no doubt points to some ceremonial observance in connection with sacred directions. It is quite evident that, when the platforms were made, the upper part was on a level with the surface of the mound, and, from the fact that the mounds were used primarily for the inhumation of the dead, it would seem that these platforms were used for burnt-offerings to their gods, either at the time

of burial or in after-ceremonies. The oven-like vessel of baked clay near the base of this mound, which was also filled with black ashes, may have been used for the same purpose when the mound was being built, the surface one taking its place when that part of the mound was completed. It is well known that certain primitive peoples offer animals and other objects as sacrifices, that they are burned and the ashes retained for certain disposition as prescribed by ceremonial laws; and it may be that the platforms were the altars, and the vessels the receptacles into which the ashes were placed and kept until the time for the ceremonial disposition of them arrived. Whatever the use of these platforms, they formed an important part of the mound-structure, and no doubt played a very interesting part in the ceremonies which were held on those great mounds.

In caving down the bank a human pottery figure was found. It was at the northwestern part of the mound and about 4 feet (1.2 m.) below the surface. It was imperfect, the upper part being the only complete section; this, however, was well preserved, and the specimen was one of an interesting type.

Skeleton 24 was buried below the hard-pan, and nothing was found with it. It was at a depth of 7½ feet (2.3 m.) below the surface. About 2 feet (60.9 cm.) north of skeleton 24, and 1 foot (30.5 cm.) nearer the surface, a number of hand-bones were found. They were those of an adult, and may have formed a part of the same burial; but this hardly seems possible, as the bones of skeleton 24 were decayed to such an extent that they crumbled when they were touched, whereas the finger-bones just mentioned were well preserved. No other bones were found with the phalanges, but near them were a bone implement and a piece of worked shell.

Skeleton 25 was that of an adult. It was resting on the layer of wood-ashes which has been mentioned, and some of the bones were in the layer itself. Mixed with the bones of the skeleton were a number of deer-bones, especially the inferior maxillaries. A fragment of a large crude jar was found in an inverted position on the ashes near some of the human bones, but, aside from this, nothing was found with the body. The ashes at this point were filled with broken bones and fragments of potsherds, and it is quite possible that they were the

ashes of wood-fires which were taken from the houses, as ashes of this nature often contain fragments of utilitarian objects.

After the upper part of the mound had been cleared away, a small pottery jar was found near the central part. It was a little over 1 inch (2.5 cm.) in height, and was decorated. After finding this vessel, the central part of the mound-area was dug to a depth of 2 feet (60.9 cm.) and in some places 3 feet (91.4 cm.) below the hard-pan, but nothing was found.

This mound in its general make-up showed no stratification. The only layers that extended to such an extent as to cover any appreciable area were those of wood-ashes and clay, which had been burned until a firm flooring was formed. There were special features, such as the clay platform which connected with the jar of the same material, the oven-like receptacle at the base of the mound, the holes which were filled with cracked stones, and an occasional strip of black half-burned clay, which covered nothing in particular, and whose use could not be ascertained. Aside from the variations noted, there were no evidences to give an idea of the manner in which the mound was built. As in the construction of Mound 2, there were no layers of ashes or other refuse to show that the material had been taken from the houses or refuse-heaps, and the greater portion of the material was clean earth. Some potsherds were found scattered through the earth which formed the mound, but many of them were fragments of vessels. The mound was built on a foundation of yellow clay, which was filled with ferruginous stone of yellow color which shaded into dark reds and was occasionally mottled with black. The lowest, and no doubt the first, burials were beneath the level of the hard-pan, at a depth of over 7 feet (2.1 m.) below the surface of the mound. Most of these were in the central part of the mound. The mound was worked down to, and finally below, the surface of the hard-pan in all parts. The major part of the burials was in the western and southern parts of the mound. Practically nothing was found in the eastern and northern parts until the central area was reached. Very little stone material was found, and no large stone figures. On the surface were fragments of stone seats, and from the broken seats scattered at its base it is evident there must have been at one time a con-

siderable number on the mound. This mound is the one pointed out by the natives as that which contained the "circle of stone seats," concerning which so much has been written. Whatever seats may have been on the mound were either broken, or taken to the towns, prior to the time that the investigations herein described were begun. A small fragment of a stone slab was found near the surface, in fact, in the surface-soil; and a few perfect metates, and others in a fragmentary condition, were found a few feet below the surface, near the stone wall at the southern end of the mound. These objects, with the small stone carvings noted, were practically all the stone articles that were encountered in the exploration of this mound. The investigations furnished the particular objects that were not presented in Mound 2. Of these, the personal ornaments were foremost, embracing shell, bone, stone, copper, and gold. Perfect vessels were next in importance, and with these the pottery figures for comparative study. Many small specimens of new form were found, but the only ones worthy of special mention at this time are the shell receptacles with covers of shell and pottery, of which there was a good series.

Mounds 1 and 2 which have just been described were the only large mounds that were known to the natives. There are a few smaller ones, and many of the latter class have been levelled, no doubt, by the cultivation of the soil and by natural causes; but it is hardly probable that another large burial-mound will be found either in Cerro Jaboncillo or in Cerro de Hojas.

CORRALES. The season's work of 1907 in the Cerro Jaboncillo and Cerro de Hojas region of Manabi, was begun with corral 1. This corral was situated in the valley bottom at the base of a terraced arm of Cerro Jaboncillo. It was on the land of Don Antonio Segovia, whose house occupied the uppermost of four terraces on the face of the slope south of this corral. The hacienda owned by this gentleman was known as "La Sierra," and embraced the greater part of the northern arm of Cerro Jaboncillo together with its ramifications. Thirty-nine of the corrales which were explored, and one burial-mound, were on this land.

CORRAL 1. The space occupied by this corral had been cleared, and was used as a grazing-ground. In cleaning away the underbrush, two very large stone tiger-heads and a mortar in the form of an animal were found. One of these tiger-heads *in situ* will be found on Plate XVII, and the other is given in drawing No. 3, Plate XLVI. These were less than 100 feet (30.4 m.) from the corral. When the work was started, there was a heavy growth of underbrush, although the space had been cleared less than four months before. The weeds and vines were cut down by the *macheteros;* but the trees, a variety of laurel, were not molested. The corral was made of stones placed on end. These formed a rectangular enclosure 25 by 42 feet (7.6 by 12.8 m.) in size. It was a low mound or platform, and on either side of it, at a distance of not over 50 feet (15.2 m.), were low ridges, one on either side, which paralleled the longer walls, and extended southward to a point on a line with a monolith, which will be described later. On the surface of the corral were fragments of three stone seats, and more were scattered through the underbrush near the corral. At the northern end of the corral there were three pointed stones, which had been placed on end and in such a position as to form a triangle (see Plate XXIII). The highest rose to a height of over 3 feet (91.4 cm.) above the surface.

The first excavation was in a depression which was southeast of the corral and 20 feet (6 m.) from it. The main depression (see Plate XXIII) was 15 feet (4.5 m.) in diameter, and a secondary one joined it on the south, this one being less than a third of the size of the other. A low ridge of earth encircled both, and the bottom of the larger was 3 feet (91.4 cm.) below it. Work was begun in the larger one, and a hole 6 feet (1.8 m.) in diameter and over 10 feet (3 m.) in depth was dug. There were large rocks, quantities of a green stone which looked like jasper, and fine gravel in the depression; but these were not stratified. Throughout the digging and to within a foot of the bottom, pieces of pottery were found. Some of it was worn as though by river-action, and it was of various degrees of fineness. No large potsherds were found, nor were there any pottery figures or stone implements. At a depth of nearly 9 feet (2.7 m.) a fragment of a sea-shell was found. At a depth of 10 feet (3 m.) large bowlders were discovered, and, as these were evidently undisturbed, the work was stopped.

Excavation 2 was on the surface of the ridge, at a point directly east of the first. On the surface there were two very heavy stones which had been placed on a line with the ridge on which they rested. These stones were removed and a hole was dug beneath them. At a point 18 inches (45.7 cm.) below the surface a semicircle of stones was reached. Below these there was a layer of large water-worn stones which extended to a depth of 3½ feet (1.07 m.), where a stratum of very small pebbles was reached, 5 feet (1.5 m.) long, 3 feet (91.4 cm.) broad, and 6 inches (15.2 cm.) thick. After digging through this layer, large water-worn pebbles were found. The work was continued until a depth of 5 feet (1.5 m.) was reached. As the material below the layer seemed to be undisturbed, and as no potsherds were found in it, the work was discontinued. Fragments of pottery were found in the earth above the re-assorted gravel layer, and one water-worn potsherd was found in it. While this work was in progress, another excavation was started at a place on the same ridge, but 10 feet (3 m.) north of it. This was carried to a depth of 2 feet (60.9 cm.), but, as the same conditions were found as in the second, the work was not carried deeper.

Excavation 3 was made in the central part of the corral, to determine, if possible, the floor-level, and to see the nature of the material to be found within the walls of the house itself. It was 5 feet (1.5 m.) square, and was carried to a depth of 4 feet (1.2 m.), but potsherds were the only objects found.

Excavation 4 was in the northwestern corner of the corral. At a depth of 1 foot 8 inches (50.8 cm.) below the surface a flat stone was found. Its longer axis was parallel with that of the corral. It was 2½ feet (76.3 cm.) long, and 1 foot 9 inches (53.3 cm.) in thickness. When the stone was removed, the earth below it presented a reddish color as opposed to the gray of the natural earth. On the surface were a number of white globular seeds. Brushing the earth aside with the hand uncovered a portion of a skull. It was broken into fragments, and decayed to such an extent that only pieces of it could be removed. The depth of the skull below the general surface was 2 feet (60.9 cm.). In uncovering the body, it was found that it had been buried in a position which caused the bones to be mixed up in a somewhat indeterminate way. The leg-bones were toward the southeast, and the ribs

were flattened at the northwest of the cranium. From the arrangement of the bones, it would seem that the body had been placed in the well-like place in a sitting position, the head being allowed to fall forward on the knees. Nothing was found with the body; and only a few fragments of bones, and the teeth, could be saved. From the appearance of the teeth, the body was that of a person of middle age. When the earth had been taken from the area beneath the body, it was found that vestiges of decayed vegetable-matter, evidently the fibre of boughs, were in evidence. It is quite possible that these were the remains of poles that had been placed in the grave as a support for the body, and that the discoloration of the soil under the stone slab was due to the decomposition of similar pieces. The bottom of the walled grave was 2 feet (60.9 cm.) in diameter, but it increased in size, until at the top it was 3 feet (91.4 cm.) wide. Its shape was irregular, and no care had been taken in laying the stones, which were rough, unworked pieces such as might be picked up on the surface near by, or found in great abundance in the bed of the *arroyo seco*, hardly 200 feet (60.8 m.) northwest of the house. The excavation was carried to a depth of 4 feet (1.2 m.), but the bottom of the walled space was not over 3 feet (91.4 cm.) below the surface of the mound. Nothing was found below the skeleton or in the earth surrounding it. Southeast of the corral, and about 75 feet (22.8 m.) from it, there was a monolith. Work was started in front of this stone, and at a point 4½ feet (1.3 m.) from it a fragment of a human jaw was found, and with it a few teeth. Directly below this fragment the upper part of a large red olla was found. It was inverted, the rim pointing downward. It was 7½ inches (19.1 cm.) from the surface. The body had been buried in such a way that the head had either rested in the olla fragment, or else, owing to some root or to some seismic disturbance, the fragment had been displaced in such a way that the jaw had fallen into it. The body evidently extended toward the monolith, as fragments of human bones were found between this stone and the jaw. Between the olla-top and the monolith, and on a direct line with the centre of the stone, there was a collection of stone objects, which may have been buried with the body, or buried as sacrifices before the massive stone. There was one large sandstone ball which was unworked, a half-round ball of sand-

stone which had the base squared, a natural sandstone concretion of grotesque form, and a carving in green stone, probably a jasper. The last-named object was in the form of a human being, the arms being folded across the breast. The centre of this deposit was 1 foot 10 inches (55.9 cm.) from the base of the monolith, and 1 foot 3 inches (38.1 cm.) below the surface. Nothing else was found with these objects, and careful search below and on all sides of it revealed nothing save a few fragments of pottery such as are found throughout the soil near this house-site.

Skeleton 3 was found in the space between the corral and the monolith. Fragments of bones and some teeth were the only evidences of the body, and these were found in a fragmentary olla of red-ware, at a depth of 7 inches (17.8 cm.) below the surface.

Skeleton 4 was found in the open space, but nearer to the southern wall of the corral than was the case with skeleton 3. There was no pottery buried with it, nor were there any ornaments or implements. It was about 9 inches (22.9 cm.) below the surface, and the bones were fragmentary and greatly decayed. In various parts of the space in which the bones were buried there were many sandstone balls, some of which ranged from 6 inches (15.2 cm.) to 1½ feet (45.7 cm.) in diameter. They may have been used to mark the position of the burials, as a few were found near the skeletons. A number of bivalve ocean-shells and one univalve shell were found in the general digging between the corral and the monolith. None of the pieces were found with the skeletons. A few animal bones were found in the same excavations, also a large flake of transparent, light-colored obsidian.

The monolith that has been mentioned was of a dark, very hard and compact stone. It was irregular in form and had not been worked, at least not to any appreciable extent. On Plate XXII a view of the monolith is shown. The workman standing near is one of the few men in this region whose appearance is decidedly of the Indian type. It is quite possible that pieces had been broken from the sides of the upper part, but this could not be determined definitely. The stone was uncovered, and below the surface it broadened to such an extent, that, with the tapering end which was above ground, it had the appearance of an enormous stone axe.

CORRAL 2. This corral was situated on the top of a ridge extending in a northeasterly direction from one of the main spurs of Cerro Jaboncillo. It was about a quarter of a mile east of corral 1, and built on a terraced portion of the ridge. The terrace was artificial, and commanded a broad sweep of the valley in two directions. The corral was of the usual rectangular shape, having a length of 88 feet (26.6 m.) and a width of 29 feet (8.8 m.) (see Plate XXIV). The stones used in the construction of the wall were similar to those employed in building the enclosure of corral 1. The size and shape are shown in the illustration, which gives a comprehensive idea of the general formation of the corral itself, as well as of its surroundings. The first shell beads that were found in this region came from the surface of this corral. They were of the flat, circular variety, with a perforation through the centre. There was a fireplace near the north-central part of the enclosure. The ashes and earth were removed from the area enclosed by an irregular wall of small stones, and excavations were carried to the hard-pan in various parts of the house-site, but only fragments of pottery were found.

CORRAL 3. Nine feet (2.7 m.) west of corral 2 there was another enclosure, corral 3. Its walls paralleled those of its neighbor, but it was a little wider than No. 2 (see Plate XXIV, left-hand side of picture). In the space between the two house-walls there was a circle of stones which averaged 3 feet (91.4 cm.) in diameter. In clearing the space which they enclosed, it was found that the stones extended but a few inches below the surface, but beneath them there was a deposit of dark-colored ashes to a depth of over 2 feet (60.9 cm.). Nothing was found in this place save the usual number of potsherds which can be found in almost any place near a house-site. The general position of the two corrales, and the irregular arrangement of stones in the space between the walls, are shown in the photograph which accompanies this description.

CORRAL 4. About five hundred yards southwest of the two corrales just described, and on the ridge of the same arm of Cerro Jaboncillo, was corral 4. It was on the second terrace, that is from the

top, and was rectangular in form. Its dimensions were approximately 24 by 16 feet (7.2 by 4.8 m.), the actual measurements being given in the accompanying plan. At the northern end of the ruin there was an addition which is rather indefinite, owing to the fact that many of the wall-stones had been misplaced. North of and adjoining this addition was a well-like depression 12 feet (3.6 m.) in diameter. As a group of these peculiar sunken places will be described, no special mention need be made of this particular one. The walls of the corral averaged 2½ feet (76.3 cm.) in thickness. When found, this corral, as were all others that will be described, was covered with a dense growth. The work of clearing away the underbrush and small trees necessitated the labors of thirty *macheteros* for over a month. In clearing the decayed vegetable-matter from the surface of corral 4, a large olla of red pottery was found in the northwestern corner. Its rim was on the level of the floor, or what seemed to have been the floor, of the house, and it had evidently been placed in position with great care. It was broken when found, but most of the fragments were in place. Its diameter at the widest part was 2 feet (60.9 cm.), and the depth from the upper part of the rim to the bottom was 1½ feet (45.7 cm.). Potsherds were scattered through the soil in this as in other corrales, but the olla was the only object of importance that was found.

CORRAL 5. This corral was on the same terrace as corral 4, and only 25 feet (7.6 m.) south of it. It was a small enclosure measuring 17 by 20 feet (5.1 by 6 m.). No sculptures or objects of importance were found in this corral.

WELL-LIKE DEPRESSIONS. About 100 feet (30 m.) east of corrales 4 and 5 there was a group of peculiar depressions which had the appearance of wells that had been filled and in which the earth had settled. There were ten in the group, and they ranged from 1½ feet (45.7 cm.) to over 4 feet (1.2 m.) in diameter. Some of them had stones on the surface; but, in excavating, it was found that they extended only a few inches below the surface. Three of these places were opened, but nothing but potsherds were found in them. The fact that Cieza de Leon stated that the people buried their dead in well-like places made it

seem that the large number of these places found in all parts of Cerro Jaboncillo would be productive of great results in the way of burials. The fact that nothing was buried in the ones opened in this group seemed to indicate that they had been used for purposes other than that of inhumation, but what those purposes were could not be ascertained. They present a problem which is as yet unsolved. There is a possibility that they may have been used for storing certain materials, as they are generally found near house-sites; but during the summer's work, in which time a number of these depressions were excavated, nothing to prove such a theory was found.

CORRAL 6. This corral was a small one situated on a knoll about 50 feet (15.2 m.) east of the easternmost depression of the group just described. The walls of this house-site were not well defined, and it was one of the small type, which may have been used as out-houses for the larger buildings. As there was nothing of importance in connection with this corral, no excavations were made in it.

CORRAL 7. This corral was a rectangular enclosure south of corral 6, the distance between the two being not more than 40 feet (12 m.). The conditions in this corral were the same as in corral 6.

CORRAL 8. This corral was southeast of No. 6, about the same distance from it as No. 7. It was another of the same type of small rectangular enclosures which did not furnish enough material or scientific data to warrant the time necessary for excavations. In carrying on excavations in one of the small enclosures connected with this corral, a large, thin metate was found, and under it a skeleton of an adult. With it was a spindle-whorl. The metate was 8 inches (20.3 cm.) from the surface. There were a number of fragmentary vessels scattered about the skeleton, and two fragments of sea-shells were with them.

CORRAL 9. This was one of the larger type of corrales, rectangular in form, and was situated on a terrace on the side of the arm of the cerro opposite to that on which corrales 4 and 5 were located. Its outlines could not be defined, owing to the fact that the majority of the

stones that had formed the walls had been removed. On the surface there were fragments of broken vessels and a number of broken stone pillars.

CORRALES 10–13. Corral 10 was less than 30 feet (9 m.) east of corral 9. It was one of a group of four small rectangular corrales, the other three being south of it. The space between these corrales averaged 3 feet (91.4 cm.). Corrales 11 and 12 were of the same size as corral 9, their longer walls being parallel to each other. Corral 13 was southeast of corral 12, but the distance between them was practically the same as that between the others of the group. A few test-holes were dug in these corrales; but the only objects of interest, and worthy of special notice, were found in corral 12. In it were found two stone celts, two stone weights, a spindle-whorl, and a pottery head. The stone weights may have been used for weaving-purposes. They average 5 inches (12.3 cm.) in length and 3 inches (7.6 cm.) in width, with a thickness of 1 inch (2.5 cm.). The two specimens mentioned had holes drilled near the edge, showing that the stone had probably been used for a weight of some kind. There was a third stone, of the same size and shape, but there was no perforation in this one. Owing to the fact that the work in these corrales was left until the larger and more important corrales had been investigated, the material taken from them duplicated to a great extent that found in the others, so the work was discontinued.

CORRAL 14. This corral was less than 50 yards (45.6 m.) east of corral 13. It was a large enclosure measuring 33 by 60 feet (10.7 by 18 m.), and its walls were strongly defined. It was on a terrace, and its eastern side was at the top of a slope which had a sharp fall to the ravine below. There was a slight rise in the land east of the corral, and from this point a photograph could be taken which embraced the enclosure in its entirety (see Plate XXIV). The result gives a good idea of the general outlines of a corral of this type.

CORRAL 14A. Southeast of corral 14, and at a distance of 50 feet (15.2 m.) from it, was corral 14A. Its general form was that of

the rectangular type, but there was an extension which enclosed semicircles of stone, which were unusual. The general measurements of the main part of the enclosure were 18 by 33 feet (5.4 by 9.9 m.). At the western end there was an extension of 6 feet (1.8 m.), and at either corner a semicircle of stones. There was a similar arrangement in the northwest corner of the main enclosure. Circles and semicircles, as well as squares, are found in many of the corrales, but as a rule they have been disarranged to such an extent that their original form cannot be determined with any exactness; it was therefore gratifying to find one instance where most of the stones were in place.

CORRAL 15. Following the ridge southward from corral 14A, for a distance of a quarter of a mile, corral 15 was reached. Between the two there were no remains of enclosures, at least none of any size, on the crest of the ridge. There may have been others on the sides of the ravine, but the Indians who know the region stated that all were on the ridge itself. Owing to the thickness of the underbrush and the limited time, it was deemed advisable to confine the work to the corrales which from their size were known to the natives. The hills were so thickly dotted with house-sites that it would have been well-nigh impossible to visit all of them in one season. When corral 15 was cleared, four broken stone seats were found within the enclosure (see Plate XXVIII), and one a few feet south of it. In size the enclosure was similar to the smaller type of corrales. It measured 22 by 33 feet (6.6 by 9.9 m.), and was built on a slight elevation. The photograph shows the approximate positions of the stone seats when found.

CORRAL 16. Continuing up the ridge in a southerly direction for about six hundred feet, corral 16 was reached. It was built on a terrace at the edge of the ravine, and was one of the smaller type of enclosures. No work was carried on in this corral save a few shallow excavations to determine the nature of the under strata.

CORRAL 17. This corral was only a few feet south of corral 16, but it was on a lower level. In size it was practically the same as its neighbor. The majority of the stones which had once formed the walls

had disappeared, but from the upper surface of the elevation on which it stood it was approximately 15 by 25 feet (4.5 by 7.6 m.). In clearing the surface of the corral, a fragment of a stone slab which was well carved was found. As the work advanced, other fragments were taken from the vegetable-mould, until there were five in all. When these were collected, it was found that the slab was complete. This slab had a plain surface which extended over 1 foot (30.5 cm.) below the carved area. This was a new feature of slab technique, and investigations made since the finding of this specimen show that practically all of the sculptured bas-reliefs had a plain base. So far as known, the specimen from this corral is the only complete one that has been taken from the ruins. No perfect ones have been seen. Another object of great interest which was found in clearing this corral was the head and shoulders of a large pottery figure. It was that of a man, and the face was beautifully modelled. A fragmentary human figure in stone was found at the base of the terrace on which the corral was built. The greater part of this corral was excavated, but only a spindle-whorl and two fragments of a stone cylinder were found. The usual number of potsherds were in the upper stratum; but no pottery figures were found below the surface, nor could the other part of the large one be found.

CORRAL 18. The trail cut by the natives led upward from the corral just described, for a distance of a quarter of a mile, before corral 18 was reached. At this part of the ridge there was a series of terraces whose sides were so steep that it was with great difficulty the saddle-animals climbed them. Corral 18 is one of a group which was built in a depression on the west side of the crest of the ridge. It was on a pyramidal eminence, but the wall-stones had fallen from their places in many parts of the enclosure. It was about 18 by 39 feet (5.4 by 11.9 m.). The clearing of this enclosure resulted in finding several fragments of carved stone slabs. When the bushes and trees had been removed, the entire enclosure was excavated. Near the centre a fire-place of burnt clay was found. It averaged 3 inches (7.6 cm.) in thickness and was 3 feet (91.4 cm.) square. The edge on one side was raised 4 inches (10.2 cm.) above the surface, and its top was well rounded. A number of slab fragments were found from 2 to 10 inches

(5.1 to 25.4 cm.) below the surface, most of them being covered with vegetable-mould only. These, with the ones found on the surface, brought the number up to eighteen from this corral alone. There were also a stone of semilunar form, fragments of grinding-stones, a chalcedony hammer-stone, several pottery spindle-whorls, and fragments of pottery figures. A great many potsherds were found in removing the earth, but no perfect vessels. Near this corral was the stone seat shown on Plate XXVIII.

CORRALES 19–21. Corral 19 was 10 feet (3 m.) west of corral 18. It was cleared, but nothing was found on the surface. Corral 20 was 30 feet (9 m.) south of corral 19. In clearing this corral, a stone seat was found. It was of the type with plain front and back. Corral 21 was 15 feet (4.5 m.) north of corral 19. The stones forming the walls were almost concealed by vegetable-mould. Nothing was found in this corral.

CORRALES 22–28. Corrales 22 to 28 inclusive formed a group which stretched north and south on the third bench of the western side of the ridge. They were west of, and about 30 feet (9 m.) below, corrales 4 and 5. They were small enclosures placed side by side, and averaged 8 by 15 feet (2.4 by 4.5 m.). It was the only collection of small buildings of this nature that was seen on this ridge. Nothing of importance was found on the surface or in the excavations which were made in some of the enclosures, with the exception of a stone metate in three pieces and a semicircular stone in nine pieces, which were found in corral 25.

CORRAL 29. From the group of corrales formed by 18 to 21, the trail lay southward and upward toward the main body of Cerro Jaboncillo. A quarter of a mile from this group, corral 29 was reached. It was an isolated enclosure, and situated on the crest of the ridge. It was the last one cleared before reaching the main range. Its dimensions could not be obtained, owing to the absence of the stones which had formed the walls. It was, however, of the small type of corrales. After clearing it, excavations were begun, and, in the vegetable-mould

and just below the surface, fourteen fragments of stone slabs were found, also a broken stone seat, a stone head, and a large section of a stone slab which has a monkey figure carved in relief on one side.

CORRAL 30. This corral was one of a group on the eastern-most part of an arm of Cerro Jaboncillo extending in an east by west direction. It was the second terrace from the top on this part of the slope. The first terrace may have been occupied by a corral, but, if so, no traces of it remain. The space is now in use as a garden, and it is quite probable that wall-stones of a corral were removed when the space was cleared. Corral 30 was of the usual rectangular form, the size being 16 by 24 feet (4.8 by 7.2 m.). When it was cleared and the surface-soil removed, a floor of baked clay was found (see Plate XXVI). This floor was from 3 to 4 inches (7.6 to 10.2 cm.) thick. Its general surface-color was red, but there were areas where it had been blackened by smoke during the firing. Through some parts of the clay were evidences that it had been mixed with grasses or weeds, probably to strengthen it. At the southwestern end the flooring was raised to a height of 6 inches (15.2 cm.), and the top rounded. On the sides it was banked against the stones, as may be seen in Plate XXVI. On the eastern end there were evidences of the floor having been raised and rounded, as at the opposite end, but it had been broken to such an extent that it was not well defined. East of the clay floor-space the levelled floor extended, but there was no burning of the clay, as in the other part. Its limit was defined on either side by a large flat stone. The first, at the northeast corner, was 5 feet (1.5 m.) long, $3\frac{3}{4}$ feet (1.1 m.) broad, and 1 foot (30.5 cm.) thick. No. 2, on the opposite side, was $2\frac{1}{2}$ feet (76.3 cm.) long, $2\frac{1}{4}$ feet (68.5 cm.) broad, and 6 inches (15.2 cm.) thick. These stones were removed and the space beneath them excavated, but only potsherds were found. The distance from centre to centre of these stones, when they were in place, was the same as that between the walls of the main part of the corral. At the eastern end of the south wall there was a large stone on end. Its inner face was on a line with the other wall-stones. It was 3 feet (91.4 cm.) wide, $1\frac{1}{2}$ feet (45.7 cm.) high, and 9 inches (22.9 cm.) thick. Near the central part of the corral, and just beyond the eastern limit of the baked floor, there were two flat stones

on edge. A hole was dug on either side of them, but nothing save a very fine yellow sand was found. There was another large stone on edge in the northwest corner; it formed part of the wall. The side-walls extended 4 feet (1.2 m.) west of the baked floor, and this, no doubt, shows the thickness of the house-wall at this end of the structure. The south wall was well preserved, but the stones forming the other walls had been displaced, no doubt by roots.

There were two large ollas in the northeastern part of the main enclosure. They had been buried beneath the floor, the rims reaching to the upper level of the baked-clay flooring. No. 1 was of red-ware, which was over half an inch thick in some places. The diameter from edge to edge of the rim was 18 inches (45.7 cm.); the diameter of the opening, 13 inches (33 cm.); and the depth on the inside, 1 foot 6 inches (45.7 cm.). The rim of the vessel is flaring, as may be seen by the photograph, which was taken of the vessel *in situ* (see Plate XXI). The olla was filled with débris when found. First there was a layer of vegetable-mould and earth; then came a large piece of burned clay such as formed the floor of the room, the piece being over 6 inches (15.2 cm.) square; below this were fragments of pottery, small stones, and a fragment of a stone metate. About 4 inches (10.2 cm.) from the bottom a layer of wood-ashes was found, which continued to the bottom of the vessel. It was quite free of foreign substances, and nothing was found in it. The olla was broken into fragments by the roots which ran through it, but it still retained its shape. Olla No. 2 was broken when found. The rim had been crushed, and the pieces had fallen to the bottom. They were covered with ashes and charcoal, which seemed to show that the vessel had been broken while it was in use. The greater part of the lower section was in place, and showed a diameter of 2½ feet (76.3 cm.); this was at the broadest part of the bulge. From the bottom to the surface of the floor was 1 foot 10 inches (55.9 cm.). Two flat stones were between the first and second ollas, and it seemed, from the ashes and charcoal that almost filled the second, to have been used as a fireplace. A broken vessel of red-ware was found 1 foot (30.5 cm.) east of the second olla and at the same depth.

Eleven feet (3.3 m.) west of corral 30, and on the same terrace, were the remains of a small corral or enclosure. Its limits could not

be defined, but it must have been about 13 by 17 feet (3.9 by 5.1 m.). Some of the wall-stones were still standing. Eleven feet (3.3 m.) west of this enclosure, and also on the same terrace, was another small corral, which must have been about 9 by 15 feet (2.7 by 4.5 m.). These small house-sites were no doubt connected with corral 30, as all of the corrales on terraces in the vicinity are of the large type.

CORRAL 30A. Thirty feet (9 m.) north of corral 30, and on the third terrace, there was another corral, which was 30A. In size it was 18 by 25 feet (5.4 by 7.6 m.). There was nothing of unusual interest in regard to the walls of this enclosure, save two stones, one of which marked the corner on either side at the east end of the corral. The stones of the walls were badly misplaced, but enough remained to get the exact measurements.

CORRAL 30B. Twenty-six feet (7.9 m.) west of corral 30A there was another corral, 30B. It was 17 by 28 feet (5.1 by 8.5 m.), and the walls were made of stones of the average size. In the northwest corner there was a series of large stones which had been placed in a line at right angles to the north wall. They may have formed one side of a small enclosure such as has been found in other corrales. South of corral 30B, and between it and the small enclosures west of corral 30, there was a narrow terrace, but there was no corral on it. The terrace on which corral 30B was situated extended some distance to the west of this enclosure, but there were no evidences of ruins on its surface.

CORRAL 31. Thirty feet (9 m.) north of corral 30A there was a corral of the usual form, which was corral 31. There were a few stones which showed the form of the enclosure, but not enough to show its exact size. In digging in this enclosure, great numbers of potsherds were found. There was a baked-clay floor, which could be defined in places at the west end of the corral, and near its western limit there was a platform of baked clay similar to the one found in corral 40, which will be described when that corral is under consideration. Around this platform, and extending some distance eastward from it, was a thick layer of ashes. In this there were potsherds, and frag-

ments of stone implements. The place may have been used for firing pottery, which would account for the numerous deposits of potsherds which seemed to have been in piles when they were left. There were no bones found in the area, and the percentage of stone implements was small. Some of these were pebbles such as those used by other primitive peoples for smoothing pottery. The character and arrangement of the material did not give the appearance of a refuse-heap.

CORRAL 32. This corral was 38 feet (11.6 m.) north of corral 31, and practically of the same size. It was of the usual form. There were no special features to cause one to make investigations, so the clearing was extended to the next corral.

CORRAL 33. This enclosure was 35 feet (10.7 m.) north of corral 31. It was 23 feet (6.9 m.) wide, and approximately 40 feet (12 m.) long. Its exact length could not be defined, as it ended at the upper limit of a slope at the northern end. This slope, or graded way, was 22 feet (6.6 m.) long, and led from this corral to corral 35. A series of excavations was made in this enclosure, but only one olla was found. Between this corral and the next one to the east there was a level space 29 feet (8.7 m.) in width and of the same length as corral 33. There were no evidences to show that there had been a corral on this level. Excavations resulted in the finding of one large olla in place, and quantities of potsherds. The northern part showed a large area of light-colored sand, and in other places there was a thick stratum of wood-ashes. There were no evidences of burials in this part of the terrace.

CORRAL 34. This corral was, as already stated, 29 feet (8.8 m.) east of corral 33. It measured 16 by 32 feet (4.8 by 9.7 m.). A large olla was found in this enclosure, 2½ feet (76.3 cm.) below the surface, and lying in a bed of ashes.

CORRAL 35. This corral was directly north of corral 33. It was smaller than its neighbor, but, owing to the condition of its walls, no measurements could be taken. The graded way which led from

this enclosure to corral 33 may be seen in the photograph (Plate XXXI), which also gives an idea of the height of the bank between this terrace and the one above it.

CORRAL 36. Just east of corral 35, and on the same terrace, was corral 36. It measured 16 by 30 feet (4.8 by 9 m.), and its walls, as shown in the photograph (Plate XXV), were practically the same as those in the other corrales of this group.

CORRALES 37, 38. Somewhat higher than the group of which corral 30 is the easternmost, and 300 feet (91.2 m.) east of it, were two corrales numbered 37 and 38. Corral 37 measured 18 by 33 feet (5.4 by 9.9 m.). Corral 38 was 11 feet (3.3 m.) east of corral 37, and very much larger, its measurements being 26 by 50 feet (7.8 by 15.2 m.). Near it was the inclined monolith shown on Plate XXII.

CORRAL 39. This corral was one of a group of two corrales and a burial-mound. This group was about 250 feet (76 m.) east of the last group described, and above it, on the crest of the ridge. Corral 39 was built on a raised platform which had sloping sides (see Plate XXV). It was 30 by 48 feet (9 by 14.4 m.), and its walls were fairly well preserved. The entire corral, with a considerable space about it, was cleared, but only a few fragments of seats and pillars were found. Excavations were carried to a depth of over 4 feet (1.2 m.), but nothing other than the usual potsherds was found.

CORRAL 40. This corral was 12 feet (3.6 m.) east of corral 39. The two paralleled each other, and were practically of the same size; the only difference being that this enclosure was 4 feet (1.2 m.) shorter than corral 39, and 4 feet (1.2 m.) wider. When it was cleared, five stone seats were found on its surface, also a number of broken stone pillars, and fragments of slabs. This corral was situated on the top of an elevation which had sloping sides. North of it, and 18 feet (5.4 m.) away, Mound 1 was located. It was probably a burial-mound for the people who lived in these two houses, for there are no other corrales near it. The excavations in this house-site, at the southern end of the

corral, brought to light a floor of burnt clay. There was a slight elevation at the southern end of the enclosure, which had the appearance of a mound, and there the platform was found (see Plate XXVI). The upper surface of the platform was only 2 inches (5.1 cm.) below the surface. When the earth had been removed from about it, it proved to be rectangular in form and in two sections. The larger one was 5 feet (1.5 m.) long and 3 feet 4 inches (1 m.) broad. The addition extended its length 1 foot (30.5 cm.). This part was not as well preserved as the main section. After a photograph had been taken, the surface was removed, when it was found that several layers had been placed one above the other. The thickness of the platform was 5 inches (12.3 cm.), but it was made of a thick foundation upon which the layers had been applied. Several well-burnt layers were removed and the surface of each was blackened, as though it had been used for a time and then a new surface made. These layers covered both the top and sides. Their general color was a dark red, which made the smoke-blackened area stand out quite prominently. Aside from the platform, the only objects found were potsherds and a few fragments of stone cylinders.

Corrales 41 to 53, which will now be described, were on the main part of Cerro Jaboncillo and on the land owned by Don Celso Velasquez. Corrales 41 to 46, and corral 53, were grouped in the immediate neighborhood of Mounds 2 and 3, and will be described according to their position, and relative distance from these mounds.

CORRAL 41. This corral, the last numbered one on the land of Don Antonio Segovia, was northeast of Mound 3, and about 200 feet (60.8 m.) from it. It was 60 feet (18.2 m.) in length, 38 feet (11.6 m.) in width at the south end, and 25 feet (7.6 m.) in width at the northern end. The walls were heavy, and the stones were placed one above the other, forming a type of wall not found in any of the corrales which have been described. The skill shown in the masonry-work may be seen in the photograph (Plate XXVII), which shows the northeastern side of the corral, where the wall was in the best state of preservation. At the northern end of the corral there was an extension of the side-walls on either side. These extensions

were 9 feet (2.7 m.) long, and were merely a heap of stones when the corral was cleared; but it was quite evident that they had been in keeping with the walls of the corral both as regards thickness and the general high character of the work. A number of stone seats and stone pillars were found on the surface of this mound.

CORRAL 42. This corral was 22 feet (6.7 m.) northeast of, and paralleling, the corral just described. It was 45 feet (13.7 m.) in length, 38 feet (11.6 m.) wide at the southern end, and 25 feet (7.6 m.) wide at the northern end. The walls were not as well preserved as those in the other corral, but there were evidences that the same care had been shown in their construction. There were projecting walls at the northern end, which were similar to those in corral 41. They were 10 feet (3 m.) long, but had fallen so that they appeared to be but a mass of stones. There was a small stone seat in place, in the northwestern corner of the enclosure, and there were a number of fragmentary seats on the surface. North of the two corrales just described there was a broad area covered with a rank growth of grass. In the edge of this, and at a distance of about 30 feet (9 m.) from corral 41, there were four broken stone seats; these had no doubt been taken from the corrales by the natives and mutilated, so that they would not have to carry them to the towns, as commanded to do by one of the old governors.

CORRAL 43. This corral was a very large enclosure 200 feet (60.8 m.) north of Mound 3. It was 69 feet (21 m.) long and 30 feet (9 m.) wide. At its eastern end there was a wall 6 feet (1.8 m.) in thickness, made of selected stones which had been laid with some care, forming a wall with a faced front. The western face of this wall may be seen in the photograph (Plate XXVII), which conveys a better idea of its appearance than can possibly be done by words. There was a well-like depression in the west-central part of this corral, in which were found a large, flat ceremonial stone axe (see Plate LXII), a skeleton of a mountain-lion or some other feline, and fragments of sea-shells. The axe was found near the surface, but the animal skeleton was 4 feet (1.2 m.) below the general level. The shells were found near

the skeleton. Scattered through the earth which covered the skeleton were many potsherds.

CORRAL 44. On a terrace north of, and 15 feet (4.5 m.) below, the corral just described, was corral 44. It was of about the same width as corral 43, but slightly longer. Its walls had been built in the same manner as those in the other three, but the south one alone preserved its original form.

CORRAL 45. One of the most commanding positions occupied by a corral in this region was that of corral 45. It was 50 feet (15.2 m.) west of Mound 2, and on the face of the cliff overlooking the valley which separates Cerro Jaboncillo from Cerro de Hojas. Its longer axis paralleled the cliff, and at the present time it is covered with a heavy growth of bamboo. The walls have been practically obliterated, and it was therefore impossible to get measurements. At a point which appeared to be about the central part of the corral, a large olla was found. It was only a few inches below the surface, and had been broken; but enough remained intact to show that it was 2 feet (60.9 cm.) in diameter at its widest part and 19 inches (48.2 cm.) in depth. It contained two square stone pillars. They were broad at the bottom and narrow at the top. Across the top of each a deep groove had been cut. With the pillars were fragments of plain stone slabs. On and near the surface of this corral were fragments of a stone slab which had on its side a decoration in the form of an animal, probably a lizard.

CORRAL 46. This corral was 50 feet (15.2 m.) south of corral 45. It was covered with a heavy growth of bamboo, being a continuation of the grove that covered the other enclosure. The wall-stones had been displaced, but it had been a corral of the larger size. In the excavations in this enclosure three fragments of stone slabs with designs were found, also two pieces of the plain base of a slab. In clearing the corral, five broken seats were found, but none of them could be used.

The next group of corrales to be considered was a quarter of a

mile south of the "Mound group," and on the opposite side of a ravine. This group was visited when a preliminary reconnaissance was made the day after the members of the party reached the hills. In searching through the underbrush, several seats were found. One was that of a tiger, the other had a supporting figure of a human being. The tiger seat was massive, and quite unlike anything that had been found, that is, in the heavy treatment of the face and various parts of the body that this one showed. The seat with the human figure had a peculiar under-cutting, which threw the chin into bold relief. Both seats were taken, and sent to Manta for shipment. These corrales when cleared were numbered 47 to 51, and will be described consecutively. They were of the regular rectangular form and of the intermediate size, measuring, on an average, 20 feet (6.m.) in width and 35 feet (10.7 m.) in length.

CORRAL 47. On and near this corral, when cleared, fragmentary stone seats to the number of twelve were found. It was built on a low platform, but there was such a tangle of vines and tree-roots that most of the wall-stones had been displaced. This was the condition of all of the corrales of this group. Almost the entire surface of this corral was worked. The excavations were carried to a depth of 5 feet (1.5 m.) in some places, but they averaged only 3 feet (91.4 cm.), that being the depth of the hard-pan. The first objects found were in the southeast corner. At a depth of 2 feet (60.9 cm.) from the surface two skulls were found, and the skeletons were a little below them. Some of the bones showed the action of fire, and with them were a number of prongs of deer-antlers, which were also calcined. There were no ashes near the bodies, but a thick layer was found a few feet to the westward of them and on the same level. One skull was taken out intact, but the other was broken. With the skeletons were an irregular piece of sea-shell, an obsidian flake, and a small ring made of gold wire. No other objects of metal were found with the bodies. After the bones had been removed, a number of sandstone slabs were found under them; two of these may have been used as metates. In the ashes near the bodies were fragments of pottery, a crudely-grooved stone which may have been used as a hammer, and a number of

water-worn pebbles. Near the south-central part of the enclosure there was a deposit of over a hundred small water-worn pebbles. They averaged 2 inches (5.1 cm.) in diameter and 1 inch (2.5 cm.) in thickness. When the workmen reached the southwestern corner of the corral, great numbers of these pebbles were found. They seemed to form a layer at the lower limit of the vegetable-mould, and it is quite possible that this part of the corral, at least, was floored with these stones. In this corner, on a line with the skeletons which were found in the opposite corner, and 12 feet (3.6 m.) from them, a figure of pottery was found. It was 1 foot (30.5 cm.) below the surface, and had been broken into several pieces. It was in the form of a tiger, which supported a human figure on its back. The head of the animal, as well as that of the human figure, was missing and could not be found. The examination of this part of the mound was carried on under great difficulties, as the ground was soaked from the fogs, and filled with the roots of tropical plants, which formed a veritable tangle. A great many stone objects were found in this corral. Many of them were natural concretions, some of which simulated the form of animals or birds. There were a number of large metates, but only one of these was taken. A large stone slab was found which had bird-forms carved on the lower part. It was in a fragmentary condition and the pieces were scattered, but seven of them were found. Fragments of two other slabs were found, and there was a stone which had a carving of a lizard on one side; it seemed to be a portion of the arm of a seat. A number of stone mullers were found in the excavations. They were in the course of manufacture, the surfaces being simply roughed out. Potsherds were as numerous in this group of corrales as in those on the lower ridges, and a large series was obtained from this corral. They were selected from the mass that was found, and show the various wares that were made, as well as the decorative work. A few pottery figures were found, one of which was that of a woman, which, as in the case of the one from the southwestern corner of the corral, lacked the head. The presence of fragmentary slabs on the surface excited the hope that perfect ones might be found in this group, but the excavations brought forth only a few more fragments.

CORRAL 48. Adjoining corral 47 on the east side, and only a few feet from it, lay this corral. In size it was practically a duplicate of its neighbor, and their side-walls paralleled each other. This corral is the one from which the massive tiger seat came (see Plate XXXVII), and there were three other stone seats on its surface. Excavations in this enclosure were begun in the southeastern corner. The first object found was a large olla of red-ware. It was 10 inches (25.4 cm.) in diameter and had been broken by roots. Below it was a large stone slab and fragments of other ollas. This entire deposit was resting in an olla which measured 2 feet 2 inches (66 cm.) in diameter. The top of the upper olla was 5 inches (12.3 cm.) from the surface (see Plate XXI). After removing this vessel, the stones, and the fragments of pottery, a spindle-whorl and a few obsidian flake-knives were found. A fragment of a large flat dish having finger-grooving on the inner surface was also in the earth in which the spindle-whorl and obsidian pieces were found. About 12 feet (3.6 m.) west of the olla-deposit just described a second one was found. The upper vessel was 7 inches (17.8 cm.) below the surface, and had a fragment of a metate and another flat slab in the central part. There were only two ollas in this deposit. At a point 5 feet (1.5 m.) west of the large olla-deposit, and 2 feet (60.9 cm.) below the surface, three skeletons were found. Two were those of adults, and one that of a very young child. Nothing was found with them and there was no evidence of burning, such as was noted in the bones found in the adjoining corral. No ashes were found with the skeleton, although in the central part of this corral there was a layer of wood-ashes over 2 feet (60.9 cm.) in thickness, and covering fully thirty square feet of space. In the southeastern end of the corral, at a depth of from 1 foot (30.5 cm.) to 3 feet (91.4 cm.), a deposit of sandstone metates was found. There were four perfect and two broken ones of the usual oblong type, and one of the semilunar shape. In the western part four hand hammer-stones of chalcedony were found. A number of rough stone mullers and quantities of pot-sherds were found in the excavations. In various parts of the enclosure, fragments of slabs and other stone objects were found, covered only with the vegetable-mould. Among these were fragments of two slabs, a stone column, two semilunar metates, two rough mullers, and a number

of small fragments of seats, and other stone objects. Fragments of two carved slabs were found beneath the surface.

CORRAL 49. This corral was southeast of corral 48. When it was cleared, only one object was found,—a fragment of a stone muller. No work was done in this corral, as the other enclosures of this group furnished a representative lot of material which showed the general class of implements and ornaments in use among the people who lived in this part of the hills. In size it was practically the same as the other two, and, like them, its walls were almost obliterated.

CORRAL 50. This corral was northeast of corral 48, and about 50 feet (15.2 m.) from it. It was on the surface of this enclosure that the seat with the under-cutting at the neck of the figure was found. Excavations in this corral furnished a number of interesting specimens. A jar with incurved top and a pedestal-base was found in the western part of the corral. It was 24 feet (7.2 m.) from the northern end, and rested against the west wall. The rim was 7 inches (17.8 cm.) below the surface. In this vessel and on a level with its rim was a flat, rounded stone which had been used as a hammer (see Plate XXI). It had been placed in the vessel, as was the case with the olla-burials in corrales 30 and 48. The reason for placing these heavy stone objects in the vessels cannot be determined, but enough has been found to show that their presence in the ollas and jars could not have been accidental. In this corral two large stone human figures were found. They were practically complete. A fragment of a third stone figure was also found with them. They were in the southern part of the enclosure, and none of them were over 1 foot (30.5 cm.) below the surface. Two vertebræ, probably of a shark, also a pottery figure, a pottery whistle in the form of a bird, half of a flat clay stamp, a pottery animal figure having the paws resting against the mouth, a pottery head, two spindle-whorls, and a stone axe, came from the same part of the corral. On the surface and in the vegetable-mould a number of large stone objects were found, including three stone pillars and fragments of others, a stone bird-head, two plain stone slabs, three metates, three rough stone mullers, and three hand hammer-stones. Numerous fragments of stone

objects and pottery vessels were found in the excavations, which were carried to a depth of 2 feet (60.9 cm.), that being the level of the hard-pan.

CORRAL 51. This corral was 200 feet (60.8 m.) southeast of corral 49. It was slightly larger than the other corrales of this group. Great care had to be taken in clearing this enclosure, as it was in the centre of a coffee-grove and there were a number of trees in the enclosure. Nothing was found on the surface, and, owing to the presence of the coffee-trees, no excavations were made.

CORRAL 52. This corral was on the left of the trail which had been made along the crest of the ridge on which corrales 2 to 29 were situated. It was on the high ground near the junction of this ridge with the main body of Cerro Jaboncillo, and within 200 feet (60.8 m.) of the group of three wells, which will be described later. The walls were not well preserved, but its size could be readily determined. It proved to be 18 by 40 feet (5.4 by 12 m.). It was located by the finding of a seat of new form near the trail. The enclosure was covered with a dense tropical growth. When the corral was cleared, a stone tiger figure was found on the surface, but nothing of note was discovered in the excavations.

CORRALES NOT NUMBERED. On the slope of the arm of Cerro Jaboncillo on which corral 18 was situated, half a dozen corrales were cleared. They were north of and below the corral just mentioned. A trail was cut, which would lessen the distance from the house of Don Antonio Segovia to the centre of the line of corrales on this ridge, and, as these corrales were on the line of the trail, they were cleared. They occupied three levels, the level places being artificial terraces. As these were cleared late in the season, no work of any importance was done in them. Two were photographed to show the general form, which, however, did not differ from that of those on the crest of the ridge above them. There were a number of the well-like depressions near these corrales. One, which was almost covered with a tangle of roots, showed a well-defined semicircle of stones on one side;

but similar conditions had been noted in other depressions which were excavated, and which, as stated, did not develop into a facing for the "well." There were a great many corrales on the side of the slope near those that were cleared, but they were of the usual form, and presented no unusual conditions, so that they were not cleared.

WELLS. We have been able to gather but little additional information concerning the wells found in different parts of the arid region of Manabi. In the preliminary report we referred to a well back of the town of Manta, cut in a sort of spiral fashion in the solid rock. In Fig. 3 is a drawing, made from a photograph, of the mouth of this well and the stone which covered it.

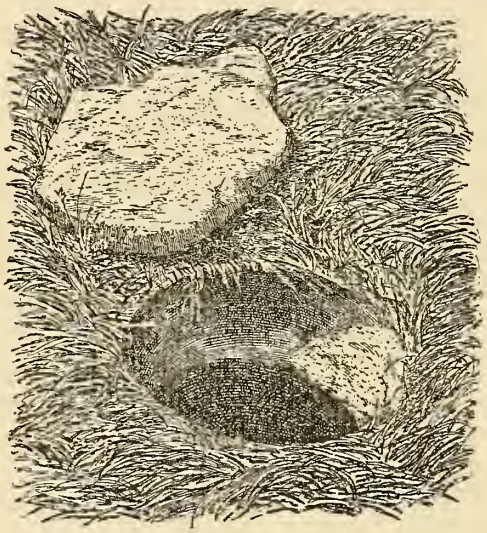


Fig. 3.

Several years ago, Don Antonio Segovia discovered a well in a ravine near the base of the ridge, the top of which was cleared for the purpose of ascertaining the directions of the different landmarks in the vicinity, and named the "Observatory." As will be seen by the photograph in Plate XXX, the sides are walled with stones carefully placed, and the greater number of them retain their former position. This well is about 6 feet (1.8 m.) in diameter and a little over 10 feet (3 m.) in depth. It is apparently connected with some spring, as the supply of water in it never fails. At the present time it is used to obtain water for the distillery of Señor Segovia, and, no matter how great the demand upon the well, the water always maintains the same level. This is the only new well which we saw during our last expeditions to Manabi, and we may state here, that all of the wells which we have seen were walled up in the manner of the one just described, and, when cleaned of the débris which has fallen in, they always fill up with water. In view of this fact, it is barely

possible that the well which we have described as being cut in the solid rock back of Manta, is not a well, but was a tomb. This point, however, cannot be definitely settled until more extensive excavations have been made with regard to the wells in the other parts of the province and in the vicinity of Santa Elena. We must not forget, however, that Cieza de Leon writes that the wells of Santa Elena were cut down through solid rock until water was met with, and that they were lined with masonry from top to bottom. It is certain that the wells which we have seen containing water are either in ravines where there is a watershed, or in the plains near the base of hills, and they are all excavated in the earth. Other excavations resembling wells will be described under the heading of Tombs.

TOMBS. On Plate XXIX are photographs of two well-like excavations cut in the solid rock. In the upper photograph is shown one which was discovered between corrales 45 and 46 on Cerro Jaboncillo. The excavation in the rock is rough, and there appears to have been no attempt to smooth the sides. It is 14 feet (4.2 m.) in depth, and measures 11 feet (3.3 m.) in diameter at the top, and its diameter is somewhat larger at the bottom. The sides are very irregular, and the remains of a stone wall were found near the southern edge. This wall may have surrounded the opening, as many stones were in the débris which was taken out of the hole. A carved stone was found at the bottom and also a spindle-whorl, but these may have washed in from the surface, as we learned that a few years ago an earthquake-shock caused a quantity of material to fall into the hole. We are inclined to the opinion that this hole was formerly a tomb, and that the opening was once much smaller than it is at present, having been enlarged by the caving-in of the roof during some violent earthquake-shock. It was undoubtedly of the same shape as the La Roma tombs (see Fig. 4).

The three well-like holes mentioned in the description of corral 52 were found at the base of the culmination of the ridge which was our Observatory. This point marked the limit of the land of Don Antonio Segovia. The holes, which were hardly a hundred feet from its base, were on a narrow ridge running to the main part of Cerro Jaboncillo. They were cut in the solid rock. The one nearest the Observatory

was of irregular form, the average diameter being 6 feet (1.8 m.) at the top, and broadening somewhat toward the bottom. It was 6 feet (1.8 m.) in depth, that is, to the bottom of the soil which had washed into it. Below this there was a layer of more compact material, which was not removed. The second hole was 24 feet (7.2 m.) from the first. The opening was 3 feet (91.4 cm.) in diameter, but increased to 4½ feet (1.3 m.) at the bottom, which was 5 feet (1.5 m.) below the opening. The third hole was 30 feet (9 m.) from the second, and was 7 feet (2.1 m.) in diameter and 6 feet (1.8 m.) deep. The general appearance of these holes may be seen in the lower photograph on Plate XXIX. They may have been used as wells, but there was no evidence that they had any natural water-supply. If they were used for the conservation of water, it is probable that they were cisterns in which the drainage could be caught. Nothing was found in clearing out these holes. There can be but little doubt that these well-like holes were tombs, which were formerly sealed by circular stones, and that in most instances the openings have been enlarged by caving in. They have, little by little, been partially filled by the washing or blowing-in of débris during the time which has elapsed since their discovery. No skeletons were found, giving indication of a considerable period since their opening, during which time all traces of bones have disappeared.

Our visit to the La Roma district in 1908, with the discovery of tombs in that region, practically settles all doubts concerning the character of the Cerro Jaboncillo holes. Nearly forty tombs were discovered in the vicinity of La Roma, and they were usually found in groups not far separated, on level slopes of the hills, but not in gullies, or places where they could receive water. Furthermore, in this section of the district there is an abundance of water furnished by small streams, and, as has already been stated, the place is nightly covered by dense fogs. The streams never run dry, thus obviating the necessity of making artificial wells. These well-like holes, both in Cerro Jaboncillo and in the La Roma district, are the tombs referred to by Cieza de Leon as follows: "In many districts belonging to the city of Porto Viejo, they make deep holes for the burial of their dead, which look more like wells than tombs. When they wish to inter a body, they

clear out all the loose earth. A large number of Indians then assemble, dance, sing, and mourn, not forgetting to drink, and to beat drums. After they have done all these things according to the custom of their ancestors, they lower the body down into the deep tomb, and, if he is a chief or important person, they bury the most beautiful and beloved of his women with him, besides jewels, food, and jars of wine made from maize. They then place those thick canes which grow in the country over the hole. If these canes are hollow, they take care to fill them with that drink, made of maize or roots, which they call 'acca,' because, being deceived by the devil, they believe (at least so they have told me) that the dead man drinks of the liquor they put into the canes. This custom of burying arms, treasure, and food with the dead, is practised in the greater part of these newly discovered countries, and in many provinces they also bury women and boys alive with them."[42] These tombs remind us somewhat of the chultuns of Yucatan, which have been explored by Edward H. Thompson; in this work we had the opportunity of assisting during the winter of 1890 and 1891.[43] Owing to the driving mists, our attempt to photograph the interesting remains in the La Roma district was a failure. In Fig. 4 is a sketch showing a section of one of these tombs. They are cut down in the solid rock, and average from 8 to 10 feet (2.4 to 3 m.) deep. They are symmetrically shaped, and have somewhat the appearance of an enormous olla, while others are broader at the base, and resemble a water-carafe. The sides are smooth and the bottom is rounded. Below the bottle-shaped opening or neck, which averages 24 inches (60.9 cm.) in diameter and the same in depth, the diameter of the tomb gradually expands toward the base, where it averages from 8 to 10 feet (2.4 to 3 m.).



Fig. 4.

In many it is approximately the same size both in diameter and in depth. These tombs were always sealed by either a circular or irregular-shaped stone slightly over 24 inches (60.9 cm.) in diameter and about 2 inches (5.1 cm.) in thickness. In some of the tombs where there was a depth of earth above the bed-rock, we found courses of squared stones lining the opening. One rather small tomb had six courses of stones upon which the cover was placed. Many of these tombs are not sealed at present, having been rifled. A number, however, which had not been explored or disturbed, were discovered, and some of them, upon removing the covers, were found filled with earth, while others had only a few inches of earth in the bottom. Owing to adverse climatic conditions and the lack of time, a systematic exploration of these tombs was not made. We commenced excavating one tomb; but after working three days, in which, on account of the constricted nature of the opening, we were able to dig only a few feet, we discontinued the work. In the general digging, a hammer-stone, a stone ear-plug, potsherds, and the bones of a turtle, were found. This tomb was covered by a stone 24 inches (60.9 cm.) in diameter, 2½ inches (6.3 cm.) thick, and which had a hole through it near one end. The opening of this tomb was about 24 inches (60.9 cm.) by 21½ inches (54.6 cm.) in diameter. In another tomb, which had been opened and rifled apparently, we found in the débris at the bottom, potsherds, human bones, and fragments of flint. The three well-like holes before referred to in Cerro Jaboncillo were of the same character as the La Roma tombs, and must be considered as tombs. We may observe here, that all of the wells which we found to contain water were much deeper than the tombs, and usually were lined with stones to the bottom. They were never olla-shaped. Thus, the character of the tombs being established, there is no possibility of confounding them with the wells, and we earnestly hope that at some future time careful explorations will be made in the La Roma district, where, we are certain, finds of great interest will be made in these tombs.

SMELTING-FURNACE. On a ridge north of the hacienda La Sierra, not far from corral 1, we discovered a well-like depression of very great interest. The opening was in the top of a low mound

covered with stones. It was 3 feet 3 inches (99 cm.) in diameter. Our attention was called to it by the evidences of extreme heat, as shown by the calcined stones at the surface. After excavating to the depth of 2 feet (60.9 cm.), it was found that the sides had been plastered, and that they had been burned to such an extent that the surface and the stones beneath it were quite friable. When the bottom was reached, at a depth of 6 feet (1.8 m.) below the surface, a considerable quantity of slag was found. This, in parts, was highly vitrified, and there were various layers, which had been formed either by the cooling of the mass or by the presence of extreme heat above the layers, which may have formed the bottom of the furnace. We found no remains of any metal in the slag-like formation, and the problem presented is an interesting one. Very little gold and copper was found by the expedition in the corrales and mounds, but we know historically that much gold was in the possession of the Indians at the time of the Spanish Conquest. No moulds or implements were discovered in the furnace, or near its mouth, and lack of time made it impossible to make a careful examination of the surrounding area. On the lower part of Plate XXX is a view of this furnace, which, we believe, was undoubtedly used for smelting metal. A portion of the slag adhering to the sides will be noted, and fragments are also shown in the débris near the edge.

MOUNDS. We have described in detail the three mounds which we excavated in Cerro Jaboncillo. In the preliminary report we called attention to many mounds which we saw in the ruins of Jocay, back of Manta, and which we conjectured were probably burial-places. In the light of our researches in the mounds in Cerro Jaboncillo, there seems but little doubt that the greater number of mounds were made for the purpose of burials. In various parts of Manabi, mounds are found, and they would probably yield interesting results upon excavation. Along the roadside between Papagayo and Porto Viejo, not far from the outskirts of the capital, are a number of mounds. One of these, shown in Plate XVII, is about 5 feet (1.5 m.) high, and perhaps 20 feet (6 m.) in diameter. There are others near by, in a field and in a grove. From several of these mounds, which have been opened by proprietors of the land, pottery vessels and other objects of clay have been taken out.

The mounds in the lowlands are circular in shape, unlike the two large mounds on the summit of Cerro Jaboncillo, which were of rectangular form. In a general way, the mounds of Manabi resemble in appearance those which we observed farther north, in the Province of Esmeraldas, especially on the Island of La Tolita. In the Province of Esmeraldas, mounds are universally called "tolas," and we saw one, not far from Atacames, which was made up entirely of solidly packed débris of potsherds and even whole vessels.

GRADED WAY. From the preliminary report we quote, regarding a graded way in the ruins of Jocay, as follows: "The surface of the ground near the northern end of this large building sloped somewhat towards the sea, and a platform or graded way was built from the level of the building as an approach; this was 35 feet (10.7 m.) long. There were no traces of steps in this graded way." Again, in describing another building, we stated that "this building also had a sloping or graded way at one end." In the corrales on Cerro Jaboncillo we saw several graded ways, and on Plate XXXI we give a photograph of one at the northern end of corral 35. This connects corrales 33 and 35, and is about 20 feet (6 m.) long; it is apparently made of earth.

CAUSEWAY. The plantation building of the hacienda of La Sierra, owned by Don Antonio Segovia, where the expedition made its headquarters, is built on the lower part of a long, irregular flank of Cerro Jaboncillo. In order to facilitate our daily trips to the top of the hill while engaged in the explorations of the mounds and corrales, we opened a trail along this spur, about a mile and a half long. As the hacienda of Don Antonio is nearly a thousand feet lower than the summit, the road which we made had a very steep grade in places. The ridge does not rise continuously; but the trail goes over long, almost level places, sometimes descending in small, narrow ravines, and again rising toward the summit. About midway between the hacienda and the top of the hill, we found a narrow ravine of but slight depth, across which, in ancient times, a causeway of stone had been constructed. This is shown in the lower part of Plate XXXI. It is about

50 feet (15.2 m.) in length, and was one of the most interesting discoveries which we made in the vicinity of the hills. It shows conclusively that this ridge was in former times used as one of the principal approaches to the large settlement on Cerro Jaboncillo.

STONE SEATS. In the preliminary report we have enumerated eight different types of stone seats; namely, the crouching human figure, crouching puma-like figure, the bird or lizard, the bat, the monkey-like figure, copper disc, standing human figure, and plain block support. As a result of the second and third seasons' work, we are now able to add several other types of seats. The most interesting is a small seat now in the garden of the Plaza in Porto Viejo. The support represents a man sitting in a seat of the ordinary type; the seat proper rests on the shoulders and head, which are bent forward to receive it. A seat in our collection has a plain slab on the front, on which are carved in high relief five coiled serpents,—a large one in the centre and a small one at each corner. The snake as a motif is almost unknown in Manabi. A small seat has an enframed standing human figure with arms akimbo. Another large massive seat has a slab in front, the two sides have edges ending in scrolls, and the surface has traces of outlines resembling the complex animal seen on the bas-reliefs described in our first report; but the carving was evidently never finished. A fragment of a very interesting seat shows a seated human figure, probably a female, with an elaborately worked garment covering the front of the body. A seat, of the crouching human-figure type, has the base hollowed out, the cavity extending through the base, under the chest of the figure, making an opening in front. We also obtained two miniature seats,—one of stone, roughly carved without designs; the other of terra-cotta, of the crouching puma-like figure type.

During the summer of 1907, while the work of clearing the corrales, and excavating the two large mounds on Cerro Jaboncillo, was being carried on, we visited nearly all of the corrales on the hill, carefully noting the number and positions of seats, and fragments of seats, to determine, if possible, whether there was any fixed arrangement or order of placing them in the corrales. Notwithstanding the fact that a very large number of these seats have been removed from

their original position, we still found a few corrales which apparently had not been visited by the natives, being located in the dense forest on the eastern and western slopes of the hill. In one corral on the eastern side, we found seats, or fragments of fairly complete seats, to the number of twelve. There was no definite arrangement, so far as we could determine, and the same holds true of the other undisturbed corrales. Where a large number of seats were grouped in a single corral, undoubtedly there may have been originally some orderly arrangement around the sides, or even in a circle, but there is no way to verify this presumption at the present time. The two large mounds which we explored had formerly a considerable number of seats on their summits, but the greater number have been removed, and we found only the fragments of perhaps a dozen medium-sized seats lying scattered around the mounds. Here there was probably some arrangement in relation to the columns and other sculptures. Seats, bas-reliefs, columns, human figures, and other sculptures are found in the same corrales, and must have been placed in some regular order in relation to each other. We shall now describe the seats added to our collection by the second expedition.

Plate XXXII, Nos. 1, 2, and 3, crouching human figure. The head, which has a broad band over the forehead, is well carved, and projects in front of the figure, but not outward as far as the edge of the seat. The nose is aquiline, the eyes are small, and the mouth is represented as in the other seats. An interesting point will be noted in the large, circular ear-ornaments, which remind us somewhat of the wooden, spool-like ear-ornaments found on mummies in Peru. They cover the entire lower part of the ear, and extend over a small portion of the face. Around the neck is a five-strand neck-piece, which covers the entire chest. This neck-piece and ear-ornaments are the most elaborate decorations found on any of the human-figure seats from Manabi. The hands are closed and placed on the pedestal, with the thumb on the forefinger at the top; the toes project downward over the back of the base. The treatment of the back of the body is quite different from that in other seats, as will be seen from the photograph. The pedestal is very thick and massive, and, in proportion to the height of the seat, it is the largest from Manabi. The front part,

under the chest of the figure, is cut out, and is not as thick as the rest of the pedestal. The seat does not rest directly on the back of the figure, but is slightly raised. It is massive, and there is a slant on the front and back edges toward the top of the arms, which are not as long as the bottom of the seat. The dimensions are as follows: Extreme height of seat, 30⅛ inches (76.5 cm.); extreme breadth, 27 inches (68.6 cm.); breadth inside of seat, 14 inches (35.5 cm.); extreme length of seat from front to back, inside, 15 inches (38.1 cm.); top of arms, 9½ inches (24.2 cm.); extreme thickness of seat, bottom, 3 inches (7.6 cm.); slant of front of seat, 75 degrees; extreme height of human figure, 11½ inches (29.2 cm.); extreme height of pedestal, 4 inches (10.2 cm.); overhang of arms of seat, average, 2¾ inches (7 cm.). From corral 48, Cerro Jaboncillo.

Plate XXXII, Nos. 4, 5, and 6, crouching human figure, of andesite. The head, which has a broad band over the forehead, is exceedingly well carved, and projects outward slightly in front of the seat. The nose is aquiline and perfectly preserved. The lower part of the face is pointed. The eyes and mouth are simply carved, but the whole expression of the face is like that of a portrait. The ears have small, circular ear-ornaments. Around the neck and over the chest is represented a four-strand necklace. The body is not well carved, and the limbs are out of proportion. The hands are closed and placed on the pedestal, with the thumb on the forefinger at the top. The top projects downward over the upper part of the back of the base. No loin-cloth is represented. A unique feature of this seat is the opening through the pedestal, which appears under the chest, and it is the only seat from Manabi in which it is found. The seat, which rests directly on the back of the figure, is broad and massive, and slopes backward toward the rear of the figure at a considerable angle. The left arm is higher than the right. This is one of the most interesting seats in the collection. The dimensions are as follows: Extreme height of seat, left side, 26 inches (66 cm.); extreme breadth, 30½ inches (76.8 cm.); breadth inside of seat, front, 17½ inches (44.5 cm.), back, 18½ inches (47 cm.); extreme length of seat from front to back, inside, 17¾ inches (45.1 cm.); extreme thickness of seat, 2½ inches (6.3 cm.); slant of front of seat, 74 degrees; extreme height of human

figure, 11½ inches (29.2 cm.); extreme height of pedestal, 3 inches (8.2 cm.); extreme overhang of arms of seat, 3½ inches (8.9 cm.). From corral 50, Cerro Jaboncillo.

Plate XXXIII, Nos. 1, 2, and 3, crouching human figure. The head has a broad band over the forehead, and has at each side a tooth-shaped projection which extends downward, covering the ears. The nose is the most prominent and aquiline of any of the seats. The face is plain, and the eyes and mouth are indifferently carved. The face extends in front of the body, but not out as far as the edge of the seat. The shoulders are large nodes, a treatment found in but few of the human-figure seats. The hands are closed and placed on the pedestal, with the thumb on the forefinger at the top. The back of the figure has a rough pecked surface. The seat, which rests directly upon the back of the figure, is thin and exceedingly graceful in shape, being broader in the front than at the back. The dimensions are as follows: Extreme height of seat, 29½ inches (74.9 cm.); extreme breadth, 24½ inches (62.3 cm.); breadth of seat inside, front, 17½ inches (44.5 cm.), back, 17¼ inches (43.8 cm.); extreme length of seat from front to back, inside, 14½ inches (36.8 cm.); extreme thickness of seat, 2½ inches (6.3 cm.); slant of front of seat, left arm, 63 degrees; extreme height of human figure, 11½ inches (29.2 cm.); height of pedestal, 2 inches (5.1 cm.); overhang of arms of seat, average, 1 inch (2.6 cm.). From corral 50, Cerro Jaboncillo.

Plate XXXIII, Nos. 4, 5, and 6, crouching human figure, of sandstone. The front of the figure is covered with a dark slate-colored paint. The head is rather well carved, the nose being prominent. A slightly incised band is on the forehead, and another band runs back over the top of the head. The shoulders are brought well forward, and the treatment of the hands is conventional. The chest appears as a flat disc with almost straight sides. The back of the figure is rudely carved, and the feet rest under the buttocks. The seat is massive, the back part of the base being nearly twice the thickness of the front. The outside of the arms, which are practically without an overhang, have the swellings seen in the other seats from this locality, and this is carried downward, and extends inward to the back of the figure. A very fine geometric pattern is carved on the front edge of the seat.

This pattern is identical with the design on the seat in the lower part of Plate XXI of the first report. There is a raised band along the edge of the inside of the seat,—a unique feature of this specimen, which is one of the most interesting from Manabi. The general appearance is of a very heavy, massive seat resting upon a slender support. The dimensions are as follows: Extreme height of seat, 22½ inches (57.1 cm.); extreme breadth, 22 inches (55.9 cm.); top of arms, 22¼ inches (56.5 cm.); breadth of seat inside, 14 inches (35.5 cm.); back, 15 inches (38.1 cm.); length, front to back, 10 inches (27.9 cm.); top of arms, right, 9 inches (22.9 cm.), left 8½ inches (21.6 cm.); thickness at bottom, front, 2 inches (5.1 cm.), back, 4 inches (10.2 cm.); slant of front of seat, 70 degrees; extreme height of human figure, 8 inches (20.3 cm.); height of pedestal, 2 inches (5.1 cm.); overhang of arms of seat, ½ inch (1.3 cm.). From Cerro Agua Nueva.

Plate XXXIV, Nos. 1, 2, and 3, crouching human figure, of sandstone much weather-worn. The head, which is large, has a band over the forehead, but the features are very much disintegrated. Practically no chest is shown. The forearms are shortened. The back of the body is carved very indistinctly. The seat rests on the back of the body, and is low and broad. The front edge is damaged, and it is impossible to state whether it was formerly decorated with geometric designs, as in other seats from this hill. The dimensions are as follows: Extreme height of seat, 17¾ inches (45.1 cm.); extreme breadth, 21½ inches (54.6 cm.); breadth inside of seat, front, 15 inches (38.1 cm.), back, 14½ inches (36.8 cm.); extreme length of seat from front to back, 13 inches (33 cm.); extreme thickness of seat, 2½ inches (6.3 cm.); slant of front of seat, 80 degrees; extreme height of human figure, 7 inches (17.8 cm.); height of pedestal, 2½ inches (6.3 cm.); overhang of arms of seat, 1 inch (2.5 cm.). From Cerro Agua Nueva.

Plate XXXIV, Nos. 4, 5, and 6, crouching animal figure, of sandstone, probably a puma. It resembles the seats from the same hill published on Plates XX and XXI of the preliminary report. Owing to the character of the stone, it is somewhat disintegrated. The head of the animal does not project beyond the edge of the seat. The limbs are those of an animal. The back part shows the buttocks, and a long tail rests on the pedestal around the left hind leg, ending in a coil in

front of the hind foot. The seat rests directly on the back of the animal, and has but a slight overhang to the arms. An interesting feature is a rude bird cut on the outer surface of the left arm of the seat. Unlike the majority of seats from this hill, there is no design on the front border. The dimensions are as follows: Extreme height of seat, right side, 26½ inches (67.3 cm.); extreme breadth, 22½ inches (57.1 cm.); breadth inside of seat, centre, 15 inches (38.1 cm.), back, 14½ inches (36.8 cm.); extreme length of seat from front to back, inside, 15 inches (38.1 cm.); thickness of seat, from 2½ to 3 inches (6.3 to 7.6 cm.); front of seat, vertical; extreme height of animal figure, 12 inches (30.5 cm.); height of pedestal, 3 inches (7.6 cm.); overhang of arms of seat, ½ inch (1.3 cm.). From Cerro Agua Nueva.

Plate XXXV, Nos. 1, 2, and 3, crouching animal figure, of fine-grained sandstone, probably a puma. The animal figure is well carved. The features and face are prominent. The fore and hind legs are well brought out; but the back of the figure is separated by a plain block extending from the base of the seat to the pedestal,—a unique feature in seats from this locality. The animal is low; and the seat, which rests directly upon the back, is low and broad with a geometric design on the front border almost identical with the design found on the seat in the upper part of Plate XXI of the first report. On the upper surface of the broad arm-rests is a simple design. The dimensions are as follows: Extreme height of seat, right side, 16¾ inches (42.6 cm.); extreme breadth, 24¾ inches (62.9 cm.); breadth inside of seat, front, 15½ inches (39.4 cm.), back, 16 inches (40.6 cm.); extreme length of seat from front to back, inside, 11 inches (28 cm.); top of arms, right side, 6 inches (14.2 cm.), left side, 7 inches (17.8 cm.); thickness of seat, 2¼ inches (5.7 cm.); slant of front of seat, 72 degrees; extreme height of animal figure, 5¾ inches (14.6 cm.); height of pedestal, 2¾ inches (7 cm.); overhang of arms of seat, 1¾ inches (4.4 cm.). From Cerro Agua Nueva.

Plate XXXV, Nos. 4, 5, and 6, crouching animal figure, of a coarse sandstone, probably a puma. The carving is very much weathered. The head of the animal projects considerably in front of the seat. The features are prominent, but the limbs are quite indistinct on the front and sides, while the back is a plain slab extending

from the seat to the pedestal. The seat rests directly upon the back of the animal and is broad, with a prominent overhang to the arms, but is quite narrow from front to back. The front edge of the seat is decorated with geometrie designs. This seat, in its appearance, is very thin from front to back, and in this respect is similar to several other seats from Manabi which have figured in the preliminary report. The dimensions are as follows: Extreme height of seat, 24½ inches (62.3 cm.); extreme breadth, 26 inches (66 cm.); breadth inside of seat, front, 15 inches (38.1 cm.), back, 14½ inches (36.8 cm.); extreme length of seat, inside, from front to back, 8¾ inches (22.2 cm.); extreme thickness of seat, 3 inches (7.6 cm.); front of seat, vertical; extreme height of animal figure, 10¼ inches (26 cm.); height of pedestal, 3⅛ inches (8 cm.); average overhang of arms of seat, 2 inches (5.1 cm.). From Cerro Agua Nueva.

Plate XXXVI, Nos. 1, 2, and 3, crouching animal figure, of coarse sandstone much weather-worn, probably a puma. It closely resembles the lower seat shown on Plate XXI of the preliminary report. The seat rests on the back of the animal, and extends out in front. The arms are high, and have the round expansions from below the outward extension at the top to the base of the seat proper. The front edge has a geometric design. The animal is like the others, forming the support of the seats, from this hill. The dimensions are as follows: Extreme height of seat, 22½ inches (59.7 cm.); extreme breadth, 22¼ inches (59.1 cm.); top of arms, 20½ inches (52.1 cm.); breadth inside of seat, front, 13 inches (33 cm.), back, 12½ inches (31.8 cm.); length, front to back, 11 inches (28 cm.); top of arms, 9 inches (22.9 cm.); thickness at the bottom, 2½ inches (6.3 cm.); slant of front of seat, 86 degrees; extreme height of animal figure, 8½ inches (21.6 cm.); extreme height of pedestal, 1 inch (2.5 cm.); overhang of arms, 1½ inches (3.8 cm.). From Cerro Agua Nueva.

Plate XXXVI, Nos. 4, 5, and 6, crouching animal figure, of weather-worn, argillaceous, shaly sandstone, probably a puma. The head of the animal is enormous when compared to the rest of the body, and is by far the largest head found in any of the animal seats. The features are prominent. The limbs of the body are of an animal, and are represented in the manner of other seats of the same type. The

seat rests directly upon the back of the animal, and the arms are quite high with rounded, globular-like swellings below the slight arm-rests. Attention was called in the preliminary report to the swelling of the body of the seat on either side,—a feature which is found only in some of the seats from Cerro Agua Nueva. The front edge of the seat is decorated with geometric designs similar to those of other seats from this hill. The dimensions are as follows: Extreme height of seat, right side, 25½ inches (64.8 cm.); extreme breadth, 24 inches (60.9 cm.); breadth inside of seat, front, 15 inches (38.1 cm.), back, 14 inches (35.5 cm.); extreme length of seat from front to back, inside, 12 inches (30.5 cm.); thickness of seat, 3 inches (7.6 cm.); front of seat, vertical; extreme height of animal figure, 9½ inches (24.1 cm.); height of pedestal, 2 inches (5.1 cm.); overhang of arms of seat, average, ½ inch (1.3 cm.). From Cerro Agua Nueva.

Plate XXXVII, Nos. 1 and 2, crouching animal figure, probably a puma. This is by far the heaviest and most massive of all the seats seen in Manabi. There were three other seats in the corral, and formerly there were possibly more, as it is one of the centrally located corrales. An extended account of the excavations which we carried on here will be found elsewhere. The head projects outward in front of the pedestal, well in front of the body. The features of the face are prominent. The fore legs end with human hands placed on the pedestal, with the thumb on the forefinger at the top. The hind legs are small and conventionalized, and out of proportion to the rest of the body, and are just back of the massive elbows. The rear part of the figure is carved to represent the buttocks, but no tail is shown. The seat rests directly upon the back, and slopes backward with a considerable slant toward the back of the figure. The left arm of the seat is broken off at the top, at the overhang. The dimensions are as follows: Extreme height of seat, right side, 32½ inches (82.6 cm.); extreme breadth, estimated, 36½ inches (92.7 cm.); breadth inside of seat at upper part, 21½ inches (54.6 cm.); extreme length of seat from front to back, inside, 18¼ inches (46.3 cm.); length of upper part of right arm, 16¼ inches (41.3 cm.); extreme thickness of seat, 4 inches (10.2 cm.); slant of front of seat, 70 degrees; extreme height of animal figure, 12½ inches (31.8 cm.); average height of pedestal, 3¼ inches (8.3 cm.); overhang

of arms of seat, 2½ to 3 inches (6.3 to 7.6 cm.). From corral 48, Cerro Jaboncillo.

We have next a small broken seat of sandstone, crouching animal figure, probably a puma, not illustrated. The entire seat is broken off, with the exception of a small section resting on the back of the animal; and the base on the right side of the figure is also missing. The face is very much battered, but two parallel lines extend from the mouth downward, over the cheek to the neck, on each side of the face. The body of the animal is better brought out in this specimen than in any others of this type. The elbows are prominent nodes. The fore feet rest on the front of the pedestal, ending in long claws, one unsheathed on each paw. A long tail is represented between the hind legs, extending downward from the back of the figure, under the seat, and curving around the left leg, ending in a coil on the upper surface of the broad pedestal. The dimensions are as follows: Extreme height of seat, 9 inches (22.9 cm.); length of seat from front to back, 10½ inches (29.2 cm.); height of animal figure, 5½ inches (14 cm.); extreme breadth of seat at pedestal, 14 inches (35.5 cm.); height of pedestal, 1½ inches (3.8 cm.). From Cerro Jaboncillo.

Plate XXXVIII, No. 1, broken seat. The entire seat part of this most interesting specimen is missing, as well as the greater part of the very thick, massive pedestal. The support of the seat is apparently a block with a human figure carved in relief on the front surface, similar to figures on the bas-reliefs. It is unfortunate that this seat is in such a battered condition, as it is entirely unique, and is the only one at all approaching this type which we saw in the province. The upper part of the head is missing, but the face was apparently well carved, the nose being prominent, the chin pointed. It undoubtedly represented a female figure. The chief feature of this specimen is the elaborate garment, which extends from each shoulder, near the upper part of the head, forming a V under the neck, and then reaches downward to the pedestal. Near each lower corner is a reclining figure, so much destroyed as to be quite unintelligible. In the bas-reliefs, the similar figures have often a monkey near each side of the body, and it is probable something of this sort is represented. The dimensions are as follows: Extreme height of fragment of seat, 11½ inches (28.8 cm.);

extreme breadth of seat, front of figure, 13½ inches (34.3 cm.); length from front to back, 10 inches (25.4 cm.); extreme height of pedestal, 4 inches (10.2 cm.). From corral 15, Cerro Jaboncillo.

Plate XXXVIII, No. 2, small seat. The right arm is missing, and also a section of the back of the seat extending nearly to the pedestal. The support is a plain block, the sides of which are not straight, but curved from the base of the under part of each arm to the pedestal. The front of the block has a bat-like figure with outspread wings, reminding us of the figure illustrated in Plate XXVII, No. 3, of the first report; but the general treatment of the figure is quite different in this specimen. The head is much larger than the body; and the wings, which have a serrated edge, extend upward in the form of a U, ending with a hook under the slight projecting border of the seat. On the front of the small body is a triangular-shaped depression with a small node in the centre. Tiny legs extend downward under the figure. The general treatment of this figure is flat, in strong contrast to the treatment of the other bat figure to which we have called attention. The face resembles more, in a general way, the heads of the puma-like figures of the seats, but there can be little doubt that this figure is intended to represent a bat. The upper part of the seat is slightly concave, and the pedestal is quite thick. The dimensions are as follows: Extreme height of seat, 13 inches (33 cm.); extreme breadth, estimated, 18 inches (45.7 cm.); extreme length of seat from front to back, estimated, 7 inches (17.7 cm.); extreme thickness of seat, 2⅜ inches (6 cm.); height of pedestal, 2 inches (5.1 cm.). From Cerro Jaboncillo.

Plate XXXVIII, No. 3, small broken seat of sandstone, crouching animal figure, probably a puma. The head of the animal, which projects considerably forward, is large, and entirely out of proportion to the rest of the figure. The face of the animal is similar to that shown in Fig. 1, and on Plate XVII, No. 2, of the first report. The greater part of the base and seat is missing. The carving at the back of the figure between the hind legs appears to represent an enormous tail, curving around the right hind leg. The dimensions are as follows: Extreme height of seat, 10 inches (25.4 cm.); extreme length of seat from front to back, 14 inches (35.5 cm.); height of pedestal, 2 inches (5.1 cm.). From Cerro Jaboncillo.

Plate XXXIX, Nos. 1, 2, and 3, small seat. This unique seat has a quadrangular block for the support, which rests on a thick pedestal. The left arm is broken off. On the front of the block is an enframed standing human figure carved in relief. The head is large. The arms are represented bent at the elbow, and raised. The sculpture is quite rude, and apparently the sex is not represented. The seat is thin and slightly concaved, with broad expanding arms. The treatment of this seat is of a very primitive character. The dimensions are as follows: Extreme height of seat, 16⅞ inches (42.9 cm.); extreme breadth, estimated, 24 inches (60.9 cm.); extreme length of seat from front to back, inside, 8½ inches (21.6 cm.); average thickness of seat, 1½ inches (2.5 cm.); height of supporting block, 9 inches (22.9 cm.); average height of pedestal, 1½ inches (3.8 cm.). From Cerro Jaboncillo.

Plate XXXIX, Nos. 4, 5, and 6, small seat. This seat is in Porto Viejo, in front of the police station, and is referred to on p. 47 of the preliminary report. As will be seen, this seat is of a different type from any of our collection. From Cerro Jaboncillo.

Plate XL, Nos. 1, 2, and 3, large stone seat of unique form. This very interesting seat is unlike any other from Manabi, although it approaches somewhat in type the seat with the serpents. It was found broken into a number of pieces, which were scattered around the corral; and one piece was more than 50 feet (15.2 m.) away from the corral. The seat rests on a quadrangular block which is on a pedestal. The two sides and back of the block are deeply hollowed out, and the two back corners or angles have somewhat the appearance of supporting rods. The front of this block is entirely hidden by a slab which extends from the base of the pedestal upward, and the front edge of the seat is flush with the slab. This is the only example where the seat proper does not extend in front of the support. The sides of this slab are slightly broader than the pedestal. The two sides are carved at the top to represent a scroll, coming up slightly on the under side of the arms of the seat. There are traces of another scroll below, on each side. The surface has traces of outlines resembling somewhat the treatment of the composite animal on the bas-reliefs. The rough pecking of the surface, and the indistinctness of the outlines, lead us to believe that the carving was never finished. On the front border of the seat are two paral-

lel grooves extending the entire length. The front of the seat projects outward at a slight angle from the base to the top,—another unique feature not found in any of the other seats from Manabi. There is a corresponding slant forward on the back of the seat from the base to the top of the arms. The dimensions are as follows: Extreme height of seat, 28⅞ inches (73.3 cm.); extreme breadth, 28 inches (71.1 cm.); breadth inside of seat at upper part, 15¾ inches (40 cm.); extreme length of seat from front to back, inside, 16½ inches (41.9 cm.); extreme thickness of seat, 3 inches (7.6 cm.); height of slab to inside of seat, 18 inches (45.7 cm.); average height of pedestal, 3¼ inches (8.3 cm.); overhang of arms of seat, average, 1½ inches (3.8 cm.). From corral 52, Cerro Jaboncillo.

Plate XLI, Nos. 1 and 2, a unique seat, of an entirely different type from any other found in Manabi. The right arm is broken off. Upon the pedestal is a block forming the support of the seat. At the front it expands, forming a slab which extends from the base of the pedestal to the top. On this slab is carved in high relief a coiled serpent, which occupies the greater portion of the surface. At each corner are four miniature serpents of the same type. The body of the largest snake is thick, and tapers toward the neck, ending in a large head. The end of the tail is small, and coiled in an opposite direction from that of the body. The smaller snakes have the same treatment, and are not carved in high relief. The serpents on this seat have been painted black, probably at no remote period, as the seat was for a long time kept at the sugar hacienda of Don Antonio Segovia, by whom it was presented to the Expedition. The dimensions are as follows: Extreme height of seat, left side, 26½ inches (67.3 cm.); extreme breadth, estimated, 26 inches (66 cm.); extreme length of seat from front to back, inside, 14 inches (35.5 cm.); length of upper part of arm, 12¾ inches (31.1 cm.); average thickness of seat, 2½ inches (6.3 cm.); height of slab, 14½ inches (36.8 cm.); width of slab at bottom, 15 inches (38.1 cm.), at top, 16¾ inches (42.6 cm.); height of pedestal, 3 inches (7.6 cm.); average overhang of arm, 1½ inches (3.8 cm.). From Cerro de Hojas.

In the Royal Ethnographical Museum of Berlin are two fragments of the arms of seats from this region. They are illustrated in

Figs. 5 and 6, and are each about 12 inches (30.5 cm.) long. For these illustrations we are indebted to the courtesy of Professor Eduard Seler. The larger specimen (Fig. 5) shows the upper part of the arm with the overhang, and a section of the body of the arm. On the outside surface, in high relief, are two serpents coiled in the same manner as the larger serpent on the seat just described, the only difference being that the heads of these snakes are considerably larger, in proportion to the rest of the animal, than in our specimen. There is a slightly different treatment in the carving of the face; the base of the head being rounded, but not pointed. In this snake the tail is carried back of the head, and recurved. The head is carved differently from that of the other fragment, and is almost pointed at the mouth, resembling somewhat an inverted triangle. The other fragment (Fig. 6) is the upper part of the arm of a seat, and shows a similar serpent carved in high relief on the upper surface. From the character of the stone and the style of the carving, there can be little doubt but that we have in these fragments in Berlin pieces of stone seats from Cerro de Hojas. Although we have no complete seats with decorations on the upper surface of the arms, we have one fragment of the upper part of an arm which was collected by the first Expedition, and it will be found illustrated in Plate XIV, No. 6, of the first report. It represents a lizard-like animal carved in relief.

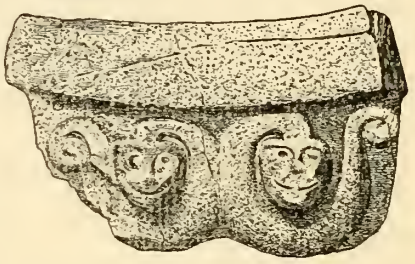


Fig. 5.

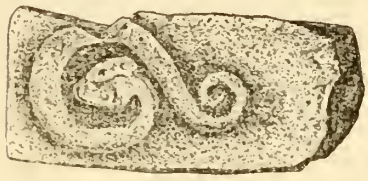


Fig. 6.

As has been noted in the preliminary report, the serpent motif is exceedingly rare among the antiquities of Manabi. In the first report we figured on Plate XLVIII, No. 17, a serpent design on a spindle-whorl. During the Expedition of 1908, we secured another spindle-whorl with snakes incised on the surface, exhibiting a treatment quite different from that of the other whorl. This will be found illustrated in No. 12, Plate LXXXII, devoted to designs on spindle-whorls.

Plate XLI, Nos. 3 and 4, small low seat. This seat is the only one in the collection entirely without decoration. It has a broad and quite thick pedestal upon which is a block, the four sides of which are perfectly plain. The seat, which rests upon the block, is deeply concaved. One arm is broken off. In proportion to the height, this is one of the two broadest of all the seats in the collection. An outline drawing of this seat will be found in Plate II, No. 18, devoted to a comparative study of the different types of seats from various parts of Central and South America. We called attention in the first report to the existence of a seat of this type in the Field Museum of Natural History, Chicago. The dimensions are as follows: Extreme height of seat, 14½ inches (36.8 cm.); extreme breadth of seat, estimated, 22 inches (55.9 cm.); extreme length of seat from front to back, inside, 11¼ inches (28.5 cm.); extreme thickness of seat, 3¼ inches (8.3 cm.); average height of block, 5 inches (12.6 cm.); average height of pedestal, 3 inches (7.6 cm.); overhang of arm of seat, average, ½ inch (1.3 cm.). From corral 20, Cerro Jaboncillo.

In Fig. 7 is illustrated the miniature stone seat to which we have already referred in the introduction of this section on the stone seats. This little specimen, found in the central part of a mound on a flank of the hill, was broken into two pieces when discovered. It is the smallest stone seat which we have ever seen, and could have served for no other purpose than as a small stand or plaything. It is rudely pecked out of stone, and bears no carving on either the front or back, although these surfaces may never have been finished. The top of the seat is slightly concaved. It is 3¼ inches (8.3 cm.) high, 4¼ inches (10.5 cm.) broad, and 3¾ inches (9.1 cm.) in length from front to back, across the top. From mound 1, Cerro Jaboncillo.

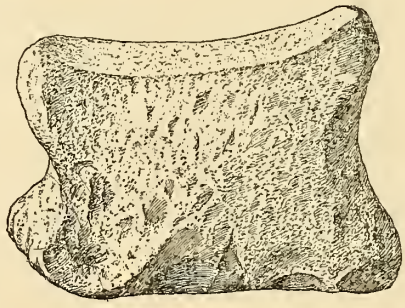


Fig. 7.

One of the most interesting specimens of our collection, and the final one of this class to be described, is a miniature seat made of clay, which is illustrated in Fig. 8. It is of the crouching animal type, and

may have served as a plaything or as a votive offering. The workmanship is rather crude and the surface is somewhat weathered. Only the head and fore legs of the animal, probably a puma, are represented on the front of the unearved central portion or body of the seat. The forehead has a number of small holes of pin-size. The characteristic features of the seats—such as the U-shaped seat with the overhang to the arms, and the broad pedestal—are found in this specimen, which is $1\frac{3}{4}$ inches (4.4 cm.) high, $1\frac{3}{4}$ inches (4.4 cm.) across the arms, and $1\frac{3}{8}$ inches (3.5 cm.) from front to back. From Cerro de Hojas.

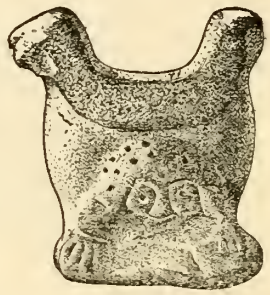


Fig. 8.

That seats of diminutive size were made in clay seems significant, and throws a certain light on the problem of the use of the large seats of stone. We have, from the beginning of our investigations in Manabi, regarded the seats as ceremonial, or, at least, to have been used primarily for religious ceremonies. That they were idols in the strict sense of the word, we are not prepared to affirm, although González de la Rosa believes them to have been used for that purpose. The clay figures of our collection, which we have described elsewhere in this report, show that they were seats. The different motifs of the support are without question to be explained as representing some religious idea; and the range in size—from examples too small to have served as seats for other than very small children, to seats of very large size—seems to strengthen the theory that they were idols, or connected with their conception of certain deities. We are unable, in the entire absence of documentary material, to do more than say, so far as our investigation in the hills will permit us to theorize concerning this subject, that the seats were arranged in the enclosures under the houses in connection with the bas-reliefs, columns, and human and animal figures; that the houses were undoubtedly raised on poles; and, since all traces have disappeared during the centuries which have elapsed since the abandonment of the place, that they were of the same perishable material as is used by the natives in this region at the present time. This would seem to indicate that the corrales or enclosures under the houses were household shrines or places of worship.

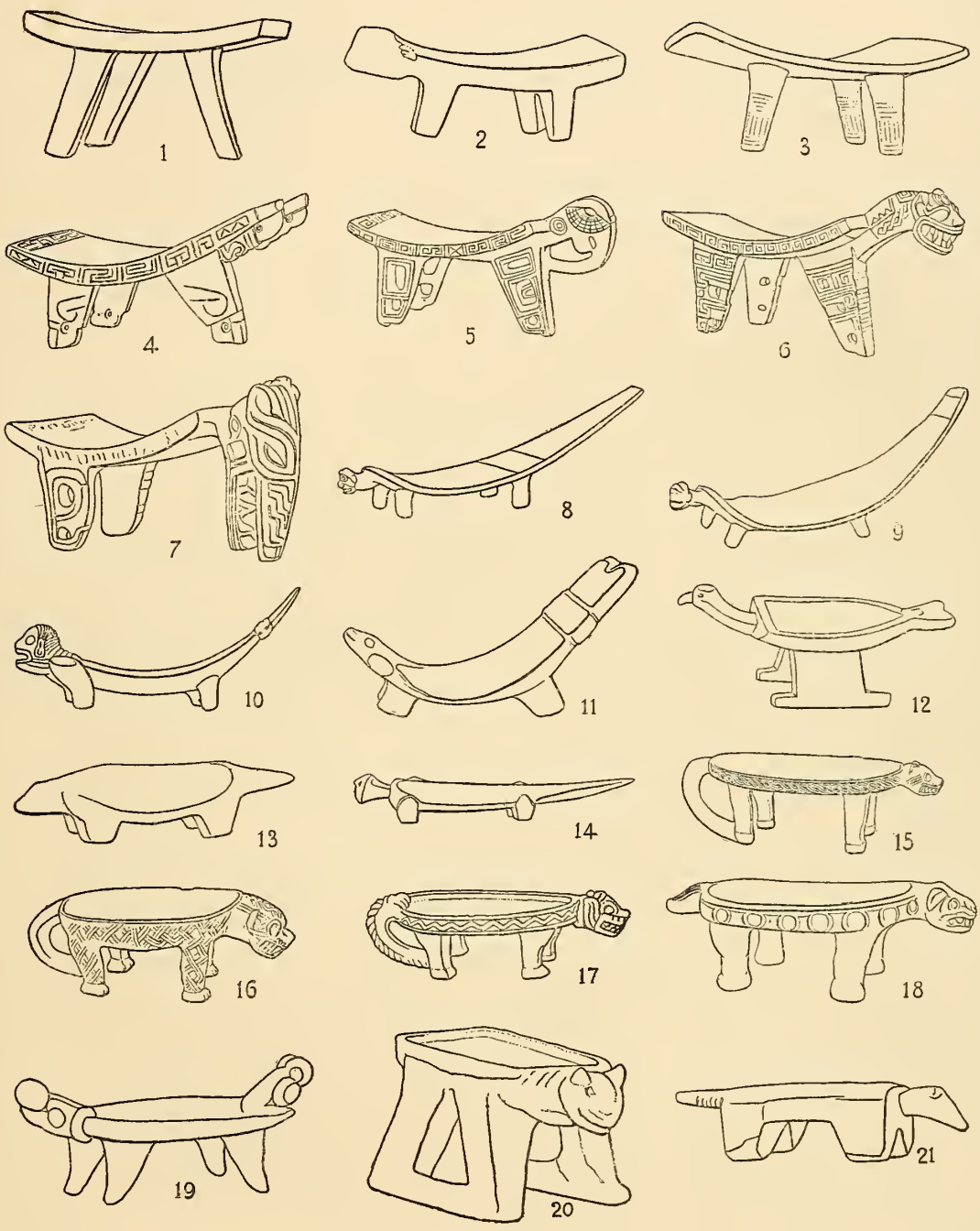
We shall now consider the use of seats in other regions, and the geographical range and character of seats both in precolumbian and modern times, in order to ascertain, if possible, whether the stone seats of Manabi can be shown to exist in one form or another outside of the Manabi province. We have already said that we know of no other seats of the same character to be found outside of the restricted area near the hills of Manabi. Our studies have, however, brought out a number of very interesting analogies between our stone seats and seats of wood encountered in other localities.

On Plates I, II, and III, we have brought together outline drawings of a number of wooden seats, both ancient and modern, and of the so-called "metates" of stone, from Florida, the West Indies, Dutch Guiana, Brazil, Venezuela, Colombia, Panama, Costa Rica, Nicaragua, Salvador, Honduras, Ecuador, and Peru. It is evident there can be no doubt that the animal-shaped seats of wood used to-day in the Guianas and Brazil are in all essential respects of the same type as those from precolumbian times found in the lower Bahamas and Porto Rico. The animal-shaped seat of stone from Porto Rico (see No. 11, Plate I) is almost identical in design with the so-called "metates" from Chiriqui and southern and eastern Costa Rica, with the exception of being considerably lower. Again, in the three-legged seats from Jamaica we find a striking likeness to those from the Pacific coast of Costa Rica and Nicaragua. In the wooden seats used to-day by the San Blas Indians of Panama and the Cayapa of the Ecuadorian coast, we find almost exact duplicates from ancient graves on the coast of Peru, and in a clay seat from Manabi. More convincing still are the examples in clay, of animal shape, shown in Nos. 19 and 20, Plate I. These seats, with Nos. 2, 5, 6, 11, 12, 16, and 20, Plate II, are given without the human figures resting upon them.

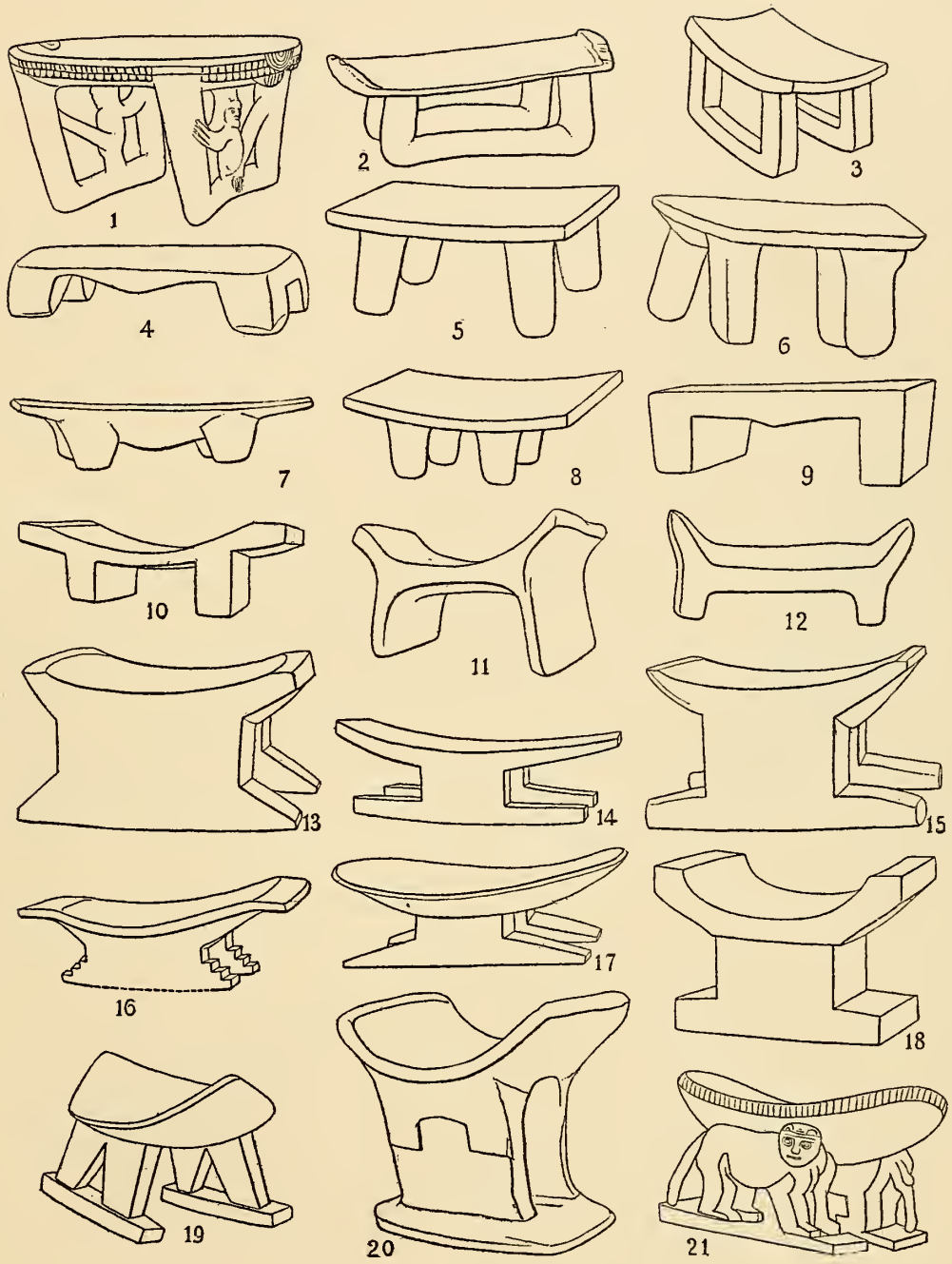
The objection might be raised that the slabs of many of the elaborate metates are too slender to have supported much weight, and consequently they must have been made for use as mealing-stones. Here we may remark, that these thin, elaborate metates bear, as a rule, but slight evidence of having been used for grinding purposes. As mealing-stones are generally very thick, in a short time they would be ground down so thin as to be no longer available for the purpose:

consequently, if the thin, finished specimens were used for grinding, they could have served only on ceremonial occasions, and not for every-day work. Rough metates are frequently found in the region of northern South America and southern Central America, and the highly finished and decorated examples, we believe, must have been used primarily as seats, in view of the analogous wooden seats, and clay figures on seats, which have been brought together in this series.

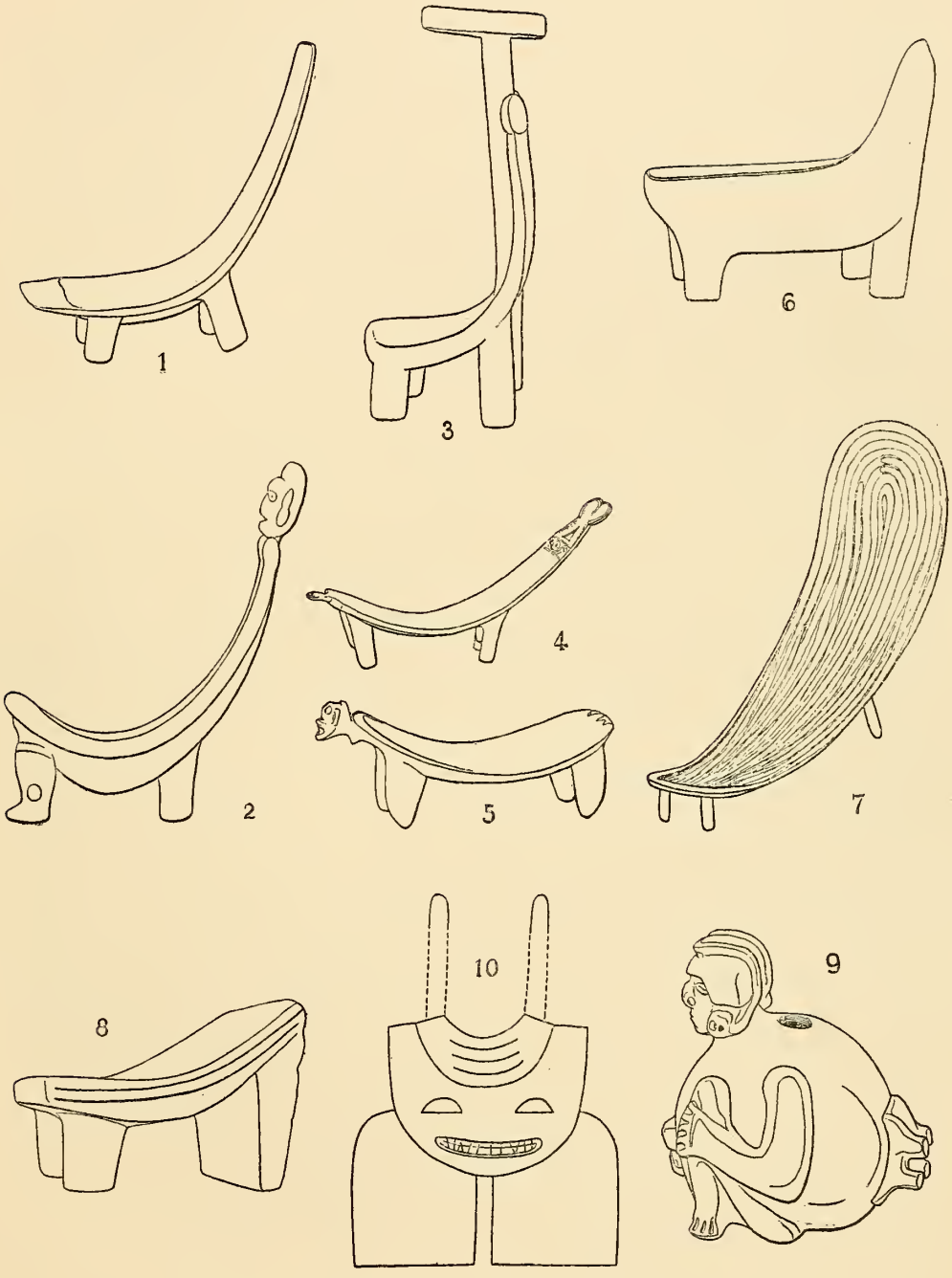
In the outline drawings on Plates I, II, and III, are fifty-two seats or stools, and metates, of wood, clay, and stone, which we have gathered from various sources. They cover, as we have already stated, a region extending southward from Florida, and the Bahama Islands in the West Indies, across the northern part of South America, and northward into Central America as far as Honduras, as well as down the west coast of South America to Peru. They have been arranged, regardless of geographical distribution, to show the different types and forms. Some of the examples may be questioned as belonging to this class of objects. These are the puma-shaped and other so-called "metates" from Jamaica, Chiriqui, Costa Rica, and Nicaragua. In Plate I the upper series shows three-legged seats, heretofore called "metates." Nos. 1 and 2 are from Jamaica; while Nos. 3 to 7 inclusive are from Costa Rica, and are of a type peculiar to the Pacific coast of Costa Rica and Nicaragua. These Central American specimens of the three-legged series are selected from a considerable number which have been published by Hartman, and, with the exception of No. 3, they represent an animal of some kind. No. 2, from Jamaica, is of identical form, but lacks the finer details, being somewhat rude in character. Nos. 1 and 3 are entirely plain curved slabs resting on three legs. Nos. 8 to 10, of wood, are from the West Indies; while No. 11, of stone and of the same shape, is from this region. Nos. 12 to 14 are modern wooden seats from Brazil. Nos. 15 to 17 are from Chiriqui, Panama. No. 19, of clay, is from Costa Rica. No. 20, of clay, is from Colombia. No. 21 is a modern seat, of wood, from Salvador. The series from 8 to 21, with the exception of No. 12, is of animal shape resting on four legs. No. 12, a modern seat of wood from Brazil, has been included in this series on account of the animal figure, but the stand should be compared with the bases of seats in series Nos. 13 to 17, Plate II.



"Metates," and Seats of Stone, Clay and Wood.



Seats of Stone, Clay and Wood.



Seats of Stone, Clay, Wood and Gold.

On Plate II we have, in the first three figures, seats of an analogous character, and from widely different regions. They are generally quite different in treatment one from the other, and each is made of material unlike that of the other. No. 1 is a unique specimen, as we have only fragments of legs which have been published by Hartman. This seat has four legs, each pair of legs being joined together at the base, and having a monkey figure carved between them. No. 2, of clay, is from the Cauca Valley in Colombia. No. 3, a modern wooden seat, comes from the interior of Brazil. Nos. 4 to 8 inclusive are of a type of seat having a plain slab resting on four legs,—No. 4, of wood, is from the Goajira Indians, Colombia; No. 5, of clay, is from Esmeraldas; No. 6, also of the same material, is from Venezuela; No. 7 is an ancient wooden seat from Florida; No. 8, of wood, is from an ancient cave in Nicaragua. The next series, as we have arranged them, is Nos. 9 to 11, which represents seats resting on two supports which extend from front to back. Nos. 9 and 10, modern, are from Esmeraldas; No. 11 is from Manabi; and No. 12 is from the Cauca Valley. We next come to the last series,—Nos. 13 to 21, and in these specimens we have what appears to be the transition from the wooden seat to the stone seat of Manabi. Nos. 13 and 15, of wood, modern, are from Panama. No. 14, of wood, modern, is from Esmeraldas. No. 16, of clay, is from Manabi. No. 17, of wood, is from ancient Peru. No. 18, a stone seat, is from Manabi, and, as will be seen, the form is identical with the series just enumerated, with the exception that the base is solid instead of being cut through, making two supports. No. 19 is a modern wooden seat from Dutch Guiana, which is of the same general type, only that the two longitudinal supports have a triangular-shaped piece cut out of them, reminding us of the clay specimen in No. 20, Plate II. The next specimen is No. 20 of Plate II, a clay seat from Manabi, which has the two longitudinal supports in the front and back, and rests on a pedestal. One side bears a carved representation of an opening in the base, making two broad legs on one side. The final specimen, from ancient Peru, No. 21, represents a bowl-shaped seat resting on two animals which form the longitudinal supports. We believe there can be no doubt that the series of animal-shaped seats of wood used at the present day, as well as the ancient animal-shaped stools

from the West Indies, proves that the puma-shaped metates from southern Central America were used primarily for seats. We again call attention to the seats of this series which *have* human figures resting upon them. No. 16, Plate II, is one of the most interesting of the entire series, as it is from Manabi, and the type is like that of the ancient Peruvian seat which we shall describe later on. On Plates LXXXVI to LXXXVIII will be found photographic illustrations of several clay figures sitting on seats of the stone type, which were excavated in mounds 2 and 3 in Cerro Jaboncillo.

On Plate III are some specimens which we were not able to place on the preceding plates. Several are seats with backs, which are developed from the Antillean *duho* (the aboriginal Antillean name for the stools or seats under discussion). We could have added largely to this series of drawings, but those which we have given will show the geographical distribution just enumerated, and we believe we have covered fairly well the geographic distribution of wooden seats of any distinctive form. Common hollowed-out logs are still used in Mexico by the Indians, but, on account of their general nondescript character, they have not been included.

The so-called "metates," elaborately worked and carved to represent animals, are not found, to our certain knowledge, north of the Nicaraguan lakes. The ancient clay seat, No. 20, Plate I, is of puma type, and is the only one of this character, dating from precolumbian times, which we have found from South America. These seats appear also in the West Indies. Again, the type of seat in series Nos. 13 to 17, and 19, Plate II, is found in the northern part of South America, from Brazil to Panama, and on the coast of Ecuador and Peru. The stone seat from Manabi, shown in No. 18 of the same plate, is not known definitely to the writer to occur outside of this province. It may be stated that the use of the wooden seats at the present time, by the Indian, does not seem to be common among all tribes. We believe that in ancient times, seats were not commonly used by the people at large, but that their use was confined to the higher classes and for ceremonial occasions. Of the examples figured on the first two plates, twelve are modern seats of wood, while twenty-four are ancient. We shall now describe these examples in detail.

The most explicit information which we have regarding the use of seats of wood by the aborigines of the New World, is found in the writings of the first explorers of the West Indies, including Columbus. Up to the present time, we have knowledge of seats occurring in the following islands, as shown by specimens in various museums and collections,—the Bahama group, Jamaica, Porto Rico, and Santo Domingo, although very small objects of a seat-like character in stone are found in other islands of the Antilles. The late Professor Otis T. Mason was the first, we believe, to call attention to the fact that undoubted seats similar to the Central American type of specimens always classed as metates, were found in the West Indies, and, up to the time of his study of West Indian archeology, had been usually called "metates." Mason, in his paper, "The Latimer Collection of Antiquities from Porto Rico, in the National Museum at Washington, D.C.," figures and describes a thin and deeply sagged stool of gray sandstone standing on four legs. It represents, according to Mason, a turtle (see No. 11, Plate I). He quotes from Herrera regarding the use of seats in Cuba as follows: "causing them [the Spaniards] to sit down on seats made of a solid piece of wood in the shape of a beast with very short legs and the tail held up, the head before with eyes and ears of gold, and that all of the Indians sat about them on the ground." Mason also illustrates and describes the two wooden seats of which we give outlines on Nos. 8 and 9, Plate I, which are from Turks Island of the Bahama group.[44]

Another example of wooden *duhos* from the Bahama Islands is given on No. 5, Plate III. As it is to-day, the part with the animal head is slightly higher than the other end, differing in this respect from the other from the West Indies, where the end opposite the head is always higher, and in some cases develops into a back. As a portion evidently has been broken off, it was formerly no doubt like the other stools, with a head at one end and the other end raised. This seat is now in the American Museum of Natural History, and was found in a cave on Caicos Island of the Bahama group in 1827. The head is similar to the heads on Nos. 8 and 9 from the Bahamas. This specimen is $18\frac{1}{4}$ inches (46.3 cm.) long, $9\frac{3}{4}$ inches (24.9 cm.) wide, the top of the head is $7\frac{1}{2}$ inches (19.1 cm.) high, while the curve of the seat is $3\frac{1}{2}$ inches (8.9 cm.) high.

Dr. Fewkes has given us a valuable account of the *duhos*, and we quote at length from his report on this subject, contained in his monograph, "The Aborigines of Porto Rico." He writes, "*Duhos*, or stools made of stone or wood, were common in the houses of the caciques. These objects, consisting of seats supported on four short stumpy legs, generally represented animals, and a head was carved at the upper or lower end. The fore legs often had depressions in the shoulders, in which may have been inserted stones, shells, or nuggets of gold. The upper surface of the seat, especially the back, was sometimes decorated with designs recalling those of collars and idols, consisting of spirals, circles, triangles, or parallel lines. These stools were probably used both secularly and ceremonially, serving at times as seats of honor in the house of the caciques, who themselves occupied *duhos* on state occasions. The dead were often placed upon similar seats, and certain clay images already described had imitation *duhos*, as has been pointed out. The great care given to the decoration of stools shows how highly they were esteemed. . . . The *duhos* or *tureys*, by both of which names the aboriginal seats or stools were designated by the aborigines of Porto Rico, were of two types, one flat and stool-like, without back, but horizontal, with short stumpy legs; the other having a curved back, rounded to fit the body, also with stumpy legs, and commonly with a carved head on the lower rim."[45] We take from Fewkes the drawing, No. 10, Plate I, which is a wooden *duho* from Santo Domingo, in the collection of Señor Ramon Imbert of Puerto Plata. This seat, and Nos. 8 and 9, Plate I, properly belong to the class to which Fewkes called attention, which are characterized by a back, although in these examples the back is not fully developed. Owing to lack of space in Plate I, we are obliged to continue on Plate III this series of seats with backs, where this feature is seen gradually evolving into a four-legged chair with a high back.

The wooden *duho*, No. 4, Plate III, is from Porto Rico. It is in the Stahl Collection in the American Museum of Natural History. The back is not more elevated than in the other examples just described. It has a slightly concaved seat, and bears a turtle's head at the lowest end; while the other end, which is quite high, is bifurcated, and carved with a scroll design. It is 24 inches (60.9 cm.) long,

7 inches (17.8 cm.) wide, 5¼ inches (13.3 cm.) high at the head, 12¾ inches (31.1 cm.) high at the back, while the bottom is but 2 inches (5.1 cm.) above the ground. Another example of a wooden chair from Porto Rico is shown in No. 1, Plate III. It was found in a cave at Jobo near Areceibo, and is in the Heye Collection. In this specimen the back is much more developed, and rises in a curve considerably above the seat, which is almost horizontal. It is not perfect, a small section, apparently, of the upper part being missing; and it is entirely plain, being without an animal, as in all of the other wooden seats which we have seen from the West Indies. It is 18 inches (45.7 cm.) long, and 9 inches (22.9 cm.) wide; the high back is 18¼ inches (46.3 cm.) high; the front is 4 inches (10.2 cm.) high; and the bottom is but 2 inches (5.1 cm.) above the ground.

The next of our series, No. 2, Plate III, is taken from the monograph of Dr. Fewkes, and represents a still further stage in the development of the high-backed seat.[46] It is in the Llenas Collection, and is of wood. It represents a sitting human figure, the lower part of the body resting on two low legs, the lower limbs of the figure being the front legs of the seat. The body is deeply concaved, and the almost straight back terminates with the head. Fewkes states that it is one of the best wooden seats which have come under his notice, and, "unlike some of the other *duhos*, it is a comfortable seat, and is in a good state of preservation."

The last of this series of wooden seats is shown in No. 3, Plate III, and is a veritable chair resting on four legs. It was described, and drawings were published, by Professor Mason, and photographs giving more details are given by Dr. Fewkes. Our drawing does not include the two human figures which are seated on this chair. We quote from Professor Mason as follows: "This carving represents two individuals seated on a canopied chair. . . . The chair has a high back ornamented with scrolls and concentric rings."

These specimens, and Nos. 6 and 7, Plate III, which we shall now describe, show clearly the various stages in the evolution from the low, almost flat stool in the form of an animal, to the high-backed chair closely allied to our own chairs.

Restrepo, in his "Los Chibchas Antes De La Conquista Española,"

writes, concerning the burials of the *zipas*, or caciques of Colombia, that the deceased were seated on low seats often covered with laminæ of gold. He quotes from Padre Simon that they were seated on gold seats, and again from Castellaños, who informs us that the dead were placed "on *duhos*, many of which were apt to be of gold."[47] Restrepo is of the opinion that these seats were not solid gold, but merely seats (probably they were wood) covered with gold-leaf. In the work above referred to, Restrepo gives in the Atlas of Plates an illustration of a gold specimen representing a man seated on a *duho* with four legs (see No. 7, Plate III), and having a high back, in all respects similar to the high-backed seat of the Heye Collection. This is apparently the same specimen previously figured by Zerda in his "El Dorado,"[48] which, Zerda states, was found at Quetame, in the *guaca* of Chirajara. Restrepo writes that it measures 17¾ inches (45 cm.), which would make it of enormous size for a gold specimen. Large figures of gold representing a man sitting on a wooden seat are not uncommon in Colombia. Several are mentioned by Restrepo in his "Estudios Sobre Los Aborigenes De Colombia," and we ourselves have seen others representing a wooden seat with four massive legs.

A most important addition to our series is illustrated by Zerda in the monograph on "El Dorado." He gives a picture of the section of a burial-chamber *(guaca)* found in the Department of Antioquia before the year 1856, in which were discovered two mummies, one of which was seated on a chair made of "baked clay." This chair, shown in No. 6, Plate III, has a back, not very high, and stands on four legs. It was evidently of considerable size, and much larger than the ordinary *duhos* of which we have given outline drawings.

Duerden, in his "Aboriginal Indian Remains in Jamaica," has figured and described two three-legged stools which he classes as mealing-stones or metates (see Nos. 1 and 2, Plate I). One is 24 inches (60.9 cm.) long by 15 inches (38.1 cm.) in breadth, and from 13 to 15 inches (33 to 38.1 cm.) in height. It is a slab with an incised fret pattern on the sides and ends, as well as on the lateral part of the two contiguous legs. The other is 23½ inches (59.7 cm.) long by 11 inches (28 cm.) wide, and at one end is 10 inches (25.4 cm.) high, and at the other end about 6½ inches (15.5 cm.) high. It has at one end

a rude head somewhat resembling a turtle. Duerden notes that similar forms, for grinding maize, are met with to-day in Central America, and now and again among the peasantry of Jamaica. He calls attention to two specimens described by Mason, and to one from Nicaragua described by Squier, closely resembling the first-mentioned Jamaican specimens.[49]

Of the three-legged type of the so-called "metates" of stone from Central America, we give four examples,—Nos. 3 to 7 inclusive, Plate I. No. 1 is a plain, deeply sagged slab resting on three feet, very similar to the specimen from Jamaica just described. It was found by Hartman in a grave at Las Guacas, in the Peninsula of Nicoya, on the Pacific coast of Costa Rica. No. 4 is a somewhat smaller specimen, now in the collection of the American Museum of Natural History, and was found in the same region. The higher end is developed into a conventional head of an animal. The specimens shown in Nos. 5, 6, and 7, were all collected by Hartman in Nicoya, and were found in the same place as No. 3.[50] These last three mentioned specimens have the three legs. No. 5 represents a bird; No. 6, a puma; while in No. 7 we have a conventionalized animal, the enormous head forming the leg of the higher part of the metate. These examples of the three-legged type are all which we deem it necessary to illustrate, but metates of this type are common in both Costa Rica and Nicaragua.

Both Von den Steinen[51] and Ehrenreich[52] have described seats of wood from Brazil. Several small wooden stools or seats are figured by Herman Meyer in his paper on "Die Kunst der Xingu-Indianer," published in the "Report of the Stuttgart Americanist Congress."[53] He writes: "The material for the plastic art is wood, stone, wax, shells, terra-cotta, and clay. The implement consists of stone, sharpened shells, fish-teeth, iron being entirely wanting. The wood-carving consists, in the first place, in the stools of animal forms. In Plate I, with the bird (Fig. 1) and jaguar (Fig. 2) there are added to my collection as new, an armadillo (Fig. 3), a skate (Fig. 4, for a stool certainly a very remarkable motif), and a small monkey (Fig. 5)." Outlines of three of these seats will be found in Nos. 12 to 14, Plate I.

Im Thurn, in his valuable work on the Indians of British

Guiana, gives us an interesting account of the wooden seats still in use among the natives of that country, but his book is not illustrated. His account is as follows: "Next in importance among the wooden articles made and used by the Indians, are the low seats or benches common in their houses, which are also hewn in spare moments from solid blocks of wood. The very desirable object of these seems to be to raise the hams of the Indians when sitting out of the reach of the jiggers, which usually abound on the floors of the houses, and are painful enough when these enter the flesh of the feet, but are far more inconvenient in other parts of the body. These benches are from six to ten inches high, and they are often so carefully scooped out and shaped to fit the body of the sitter, that they are comfortable as any cushioned stool could be. They are often formed into grotesque figures of tortoises, frogs, armadillos, alligators, and other animals. One in the Christy Collection, which, though not from Guiana, is Carib, is in the form of a man on all-fours, the middle of his back forming a seat. Bright-colored seeds, and occasionally pebbles, are inserted to represent the eyes."[54]

We now return to the four-legged type of puma-shaped metates, corresponding to the four-legged animal *duhos* of the West Indies and Brazil. Objects of this type are restricted to the province of Chiriqui in northern Panama and to Costa Rica, and, as we have already stated, they are usually described as metates or mealing-stones.[55] A glance at the series reveals their close relationship to the *duhos* already described. These so-called "metates" or "mealing-stones" of Nicaragua, Costa Rica, and Chiriqui, present considerable diversity of form, and in different parts of the southern Central American area show locally developed types. They are usually carved from volcanic rocks, and may be divided into several classes. The most elaborate and noteworthy forms are those (intending to imitate the puma or ocelot) having a thin tablet representing the body resting upon four legs, the head projecting from one end of the tablet, and the tail at the other end joined to a hind leg; and those representing an animal resting on three legs. They have been called "metates;" but they are so closely allied in type to the specimens of an analogous character, from the West Indies, that it may be well for us to consider if they could not have served some

other purpose than that of mealing-stones. As we have demonstrated, among the antiquities from Porto Rico, Jamaica, and the Bahama Islands, are objects closely resembling this type carved not only in stone, but also in wood; and we have explicit statements from the earliest writers, including Columbus and Herrera, in which they are called "seats" or "stools." In the West Indies, wood was much more commonly used in making these stools than stone, and, among the Indians of our day living in the Guianas and Brazil, wooden stools are an ever-present part of the household furniture. They are also found in Panama, in Colombia, along the northern and western coasts, and as far south as the region of the Cayapa Indians of Ecuador. In view of the rather meagre knowledge of the archeology and ethnology of Venezuela, we have been able to cite only one example of a seat occurring in this country, which fills in the gap extending along the northern part of South America between British Guiana and Panama. From examples of small clay figures on stools, several of which have been discovered (and the Venezuelan specimen is of this type), we find that, in Colombia, seats of a somewhat similar character were used in ancient times.

Undoubtedly the primitive form of the seat was a simple log of wood hollowed out on the under part. From this type the elaboration into animal forms took place. At the present time, in various parts of Mexico and Central America, the small bench or seat employed by the natives is a simple log hollowed underneath, and often having an extension at one end forming a kind of handle. This handle reminds us strongly of the head of the animal-shaped seats in both wood and stone, and it may represent an extreme conventionalization of the animal form. Without question, the stone seats of Manabi had their prototype in seats of wood, and our terra-cotta figures excavated in the mounds of Cerro Jaboncillo show the type of wooden seat, while others clearly represent stone seats.

Owing to adverse climatic conditions, wooden seats or stools would not be preserved for any length of time in graves or ruins along the Ecuadorian coast, but they have been found in the burial-places of the deserts along the coast of Peru. The wooden stools from Peru, Nicaragua, the West Indies, and Florida, are the only ones which have

come down to us from precolumbian times. They were used probably in southern Central America; but here, again, the climatic conditions are not favorable for their preservation in the ground, and, with the single exception of the Nicaraguan specimen, they have not been discovered in this region.

The puma-shaped metates shown in Nos. 15 to 17, Plate I, are in the Heye Collection, and are characteristic specimens of this class. They are specialized by the long tail joined to one of the hind legs. Specimens are often found with the head replacing the tail, and again having a short stubby tail, as in No. 18 of the same plate. This one is now in the American Museum of Natural History, and was found in Siquirres, eastern highlands of Costa Rica.

That four-legged animal stools were used in Costa Rica in ancient times, is conclusively shown by researches of Hartman in his excavations at Las Guacas, in the Peninsula of Nicoya on the Pacific coast of Costa Rica. Hartman gives, in his "Archeological Researches on the Pacific Coast of Costa Rica" (p. 20, Fig. 13), an illustration of a small figurine about 4 inches (10 cm.) high and $4\frac{3}{8}$ inches (11 cm.) long. He describes it as "a small human figure with a large grotesque head, sitting on a small, rectangular, four-legged seat, and holding a child on its knees. The figure wears a hat with linear, incised ornamentation." The cut shows an animal-shaped metate with a head at each end of the slightly concaved slab, and having four legs roughly representing the legs of an animal. From this illustration it is impossible to determine accurately whether a puma or an alligator head is represented (see No. 19, Plate I).

Hartman, in his description of the large number of elaborately carved metates which he found in the excavations at Las Guacas, has called attention to the identical type of metate which is found in the western part of Nicaragua, but which is not found to the north in other parts of Central America. He notes the fact that the similarities in shape and ornamentation between the metates of Guanacaste and those of Porto Rico and other islands of the West Indies, have been pointed out by Dr. J. Walter Fewkes and others. He has divided the metates of Las Guacas into two distinct types, distinguished by the shape of the legs; viz., "those with cylindrical and in some cases coni-

cal legs, and those with flat, nearly triangular legs." He states that specimens of the first group are by far the most numerous. These metates are nearly all supported by three legs, reminding us of the specimens from Jamaica described and figured by Duerden. In the eastern part of Costa Rica and in the province of Chiriqui of the Republic of Panama, by far the greater number of objects of this class are of animal shapes resting on four-legged metates which have the slab oval-shaped, with decorations of small animals' heads around the edge.

Wooden seats of the Brazilian type, rudely carved in the form of an animal, are still used by the Aztecs of Nahuan stock, in Salvador. Hartman has figured one (see No. 21, Plate I), which he collected at Nahuizalco. It is 18⅛ inches (46 cm.) long, and very low, the height not being given. Hartman calls attention to the quite similar wooden seats collected by Von den Steinen in Central Brazil.[56]

From Colombia, Lemly, in his article on "Who Was El Dorado?" figures and describes a clay figure found near Barragan.[57] This town is about twenty miles northeast of Bugala Grande, near the left bank of the Bugala Grande River, which flows westward into the Cauca River, according to a manuscript map of the central part of the Cauca Valley, made by Robert B. White in 1897. The figure represents a woman with folded arms, wearing a nose-ring, necklace, and bracelets, and sitting with extended legs on a pedestal in the form of a puma-shaped stool. It is illustrated in No. 20, Plate I, without the figure. The fore and hind legs of the animal are joined together by a rod. The head and neck extend forward from the end of the concaved upper surface on which the human figure is seated. From the illustrations we are unable to learn whether the animal has a tail,—a feature so prominent in most of the puma-shaped stools of Central America,—and Lemly gives no detailed description of the specimen.

In No. 3, Plate II, we illustrate another wooden seat from Brazil. This seat was found among the Baniva Indians of the Rio Aiary, Colombia, near the frontiers of Brazil and Venezuela. The seat is considerably concaved, rests on four legs, and is peculiar in having the pairs of legs on each side connected by a rod. This peculiarity may be noted in No. 1 of the same plate, which is the stone seat from Costa Rica we have just described. The same feature is also found in

No. 2 of this plate, which is from the Cauca Valley, Colombia. It is of clay, and upon it is a seated human figure, not shown in the drawing. It was found in an ancient grave.

Göeje has figured a wooden stool from Surinam, which is deeply concaved, resting on four legs (see No. 19, Plate II). The legs on each side are joined together by a rod, as in the specimens Nos. 1 to 3 of the same plate. Göeje writes: "With the Ojanas, the upper part of the stool is sometimes flat, and these are called *apika;* others are round, and are called *kololo.* With the Trios there are found similar round stools, and these often have a protruding part called *iputupöli* (the head), which makes them similar to the rough imitation of some animal. The Saluumas know how to scoop out artistically the seat of the stool. This model reminds one strongly of the stools made by the Bush Negroes (especially the Saramakkaner). It can, however, very well represent an animal stool."[58]

We now come to the four-legged seats of the series. A rude wooden seat of this type, in use among the Goajira Indians in northeastern Colombia, is figured in No. 4, Plate II. This low bench shows the first stage in the development of the seat with legs, from the low, hollowed-out log. The very slightly curved slab resting on four legs, shown in No. 5, is part of an ancient clay figure from the Island of La Tolita, Esmeraldas, Ecuador. The seated figure is broken, and we have not included it in the drawing. The next seat of this class, the clay slab with four legs, is shown in No. 6, and is from Venezuela. It is the only example of a seat from this country which we are able to include in the series. There can be no doubt that the typical wooden seat exists to-day among the Indians of Venezuela. The example referred to is an ancient clay specimen figured by A. Ernst in an article entitled "Venezuelanische Thongefässe Und Thonfiguren Aus Alter Und Neuer Zeit."[59] It is a rudely modelled human figure on a four-legged metate-shaped support, and was found at Santuario, near Niquivao, in the State of Trujillo.

A specimen of great importance in our study of the use and distribution of seats is illustrated in No. 9, Plate III. This object, in the Heye Collection, is a large rattle and whistle of human form, made of gold. It is 3 inches (7.6 cm.) high, and comes from Costa Rica. The

extraordinary feature of this specimen is the tiny, four-legged *duho* placed low down on the back of the globular part of the object representing the body. This shows conclusively that the wooden seat was used in Costa Rica in ancient times, and here we would refer you to the statement made by Father Cobo regarding the seats of the ancient Peruvians, which we quote in full farther on in describing Peruvian seats. A point to which we call attention here is, that Cobo writes that it was the custom in Peru for a *duho* to be given to the eldest son when he was raised to the dignity of chieftainship. This may be the explanation of the occurrence of this seat on the object just described from Costa Rica. The shape of the seat is almost identical with that of the wooden seat from an ancient cave in Nicaragua (No. 8, Plate II), which we shall describe later.

Of far-reaching interest was the exploration in 1895–96, by the late Frank Hamilton Cushing, of ancient key-dweller remains on the Florida coast. The remarkable discovery of deposits of wooden artifacts at Key Marco, in southwestern Florida, is one of the most important contributions to archeology ever made within the limits of the United States. The many objects found buried in the muck point conclusively to contact in ancient times with the West Indies. Cushing was fortunate enough to bring to light specimens of seats *(duhos)* which extend our series into the United States. In his preliminary report,[60] under the heading Furniture, etc., he describes these seats as follows: "Here and there were found curious wooden seats,—more or less like ancient Antillean stools, as may be seen in Fig. 7, Plate XXXIV,—flat slabs of wood from a foot to more than two feet in length, slightly hollowed on top from end to end as well as from side to side, with rounded bottoms, and substantial, prong-like pairs of feet near either end, from two to three inches long. Some of these stools had the feet level; others, so spread and bevelled that they would exactly fit the hollow bottoms of canoes. Others still were smaller than those I have mentioned, so diminutive, in fact, that they could have served no purpose else, it seemed to me, than that of head-rests or pillow-supports." In describing the specimen above referred to, which he illustrated, and which we give in No. 7, Plate II, Cushing says that "it is 17 inches (43.2 cm.) in length, between 6 and 7 inches (15 to 18 cm.) in width, and

at one end, 5 inches (12.3 cm.), at the other end, 6 inches (15.2 cm.) high. It was blocked out with shell adzes—as shown by traces of hacking still visible on its under side, then finished with shark-tooth knives—from a piece of hard, yellowish wood, probably buttonwood."

The four-legged *duho* from Florida is almost identical with the seat from Nicaragua now to be described. This valuable addition to our series is shown in No. 8, Plate II. It is a stool of wood, and was collected by Dr. Earl Flint from the cave of Cucirizna, Nicaragua. We do not find this place on any map, but it must be near the Nicaraguan lakes on the Pacific slopes of Nicaragua. The specimen is now in the Peabody Museum, Harvard University. In referring to the Twelfth and Thirteenth Annual Reports of the Museum, we find that this cave was explored by Dr. Flint in 1878–79, and the entries of specimens obtained are, flint knife, perforated shells, beads of different materials, human skeletons, and the wooden stool. As will be apparent at a glance, it is identical in shape with many of the so-called "metates," and of the size of a small metate, being about 11 inches (28 cm.) long, and from 3 to 4 inches (7.6 to 10.2 cm.) high. The curved upper part, resting on four legs, is like the clay seat (with seated human figure) from Esmeraldas, shown in No. 5 of the same plate. This is the only specimen of an ancient wooden stool which we have ever seen from Central America, and it is not like the type of seat now used in the southern part of the Republic of Panama, but in every way resembles an ordinary undecorated metate of the four-legged class. Curiously enough, the common type of stone seat (metate) from Nicaragua is of the three-legged class. Oviedo, in his account of the habitation and the furniture contained in it, of the cacique of Tecoatega in Nicaragua, describes exactly the specimen under consideration, but he states that stools were used as pillows by the chiefs. We translate from his work as follows: "For a pillow he had a small stool with four feet, a little concaved, which they called *duho*, made of very handsome and smooth wood, very well worked for the upper part."[61] The term *duho* used by Oviedo is, as we have already observed, a West Indian word, applied to the stools or seats of the islands, and was often used by early writers in describing seats from different countries, where the word could not have been current in precolumbian times. We consider it to be significant

that Oviedo has used the word *duho*, and believe these stools were used for seats as well as for pillows, and only by the caciques.

Schmidt has illustrated two low wooden stools of different types, which, he states, were very often used for pillows. One is simply a log hollowed out on the under side, leaving both ends and sides closed; the other specimen has been hollowed out, leaving four legs and a deep groove on the under surface, running parallel with the length. They belong to the Guato tribe of Central Brazil.[62]

A further variation in wooden seats is found in use among the Cayapa Indians of Ecuador. Two examples of simple Cayapa seats are shown in Nos. 9 and 10, Plate II. They were collected by Dr. Barrett for the Expedition, and will be described by him in the monograph on the Cayapa Indians, to be the fourth volume of our series of publications. The first specimen is a plain flat log resting on two legs running transversely to the length. The other specimen is more interesting. It is a deeply sagged seat resting, as in the other specimen, on two supports; but each end of the seat extends outward, giving the upper part somewhat the appearance of the upper parts of the stone seats from Manabi. We may compare this modern wooden seat with the clay seat shown in No. 11. This small seat has a human figure sitting in it, not shown in the drawing; but on Plate LXXXVII the complete specimen is illustrated. This specimen is from Cerro Jaboncillo, and is the same type of seat as the preceding specimen, with the exception that the ends are raised, forming sloping sides. In No. 12 we figure one other seat of a somewhat similar character.

In the "Catalogo del Museo del Señor Leocadio Maria Arango de Medellin," published by Señor Arango in 1905,[63] there is illustrated and described a colored clay figure (No. 521) $8\frac{1}{4}$ inches (21 cm.) high, from Finlandia in the Cauca Valley, Colombia. It is of a person sitting on a low seat, with the arms on the breast. It has a head-gear, and the face is adorned with designs. The seat is evidently of wood, with each end of the upper surface raised. The two supports upon which the seat lies are not legs, but are solid, extending its entire breadth. The drawing of the seat (No. 12, Plate II) is without the figure.

Two very important seats for our study are shown in Nos. 13 and 15, Plate II. These wooden seats, from the San Blas Indians

of the Isthmus of Panama, are in the American Museum of Natural History. No. 13 is 6½ inches (15.5 cm.) long, 4½ inches (11.3 cm.) wide, and 3⅞ inches (9.4 cm.) high. No. 15 is considerably larger, being 13⅝ inches (34.7 cm.) long, 13 inches (33 cm.) wide, and 4½ inches (11.3 cm.) high. They are made from solid blocks of wood hollowed out underneath so as to form a front and back support to the scooped-out upper surface. This is a somewhat common type of seat, and several other examples of this class are figured on the same plate. If these seats were solid, they would be almost identical in shape with the simplest example of a stone seat from Manabi, of which, in No. 18, Plate II, we give an outline. A study of the drawings will, we believe, show convincingly that the prototype of the stone seat still exists in the northern part of South America. Furthermore, this type of wooden seat was used in Manabi in ancient times, as shown in No. 16, Plate II, which is a seat resting on the back of an animal and having a man standing in the concaved upper surface. This specimen is illustrated and described in the section on ceramics. It was found near Cape Pasado. This same type of seat also occurs farther south in Peru, where several examples have been found in ancient burial-places, two of which are shown in Nos. 17 and 21 of this same plate. In No. 14, Plate II, we have a wooden seat of this class in use among the Cayapa Indians of Esmeraldas at the present day. It was collected by Dr. Barrett, who was sent to the field by the Heye Expedition to study this primitive tribe. The report of this work will appear, as we have said, in our series of publications. The Cayapa claim to have arrived from the interior of Ecuador very recently, long since the Spaniards first came to this country, and that this type of seat was found by them on the coast, their common seats being simple hollowed-out logs of wood. As we have before intimated, ancient wooden seats are not likely to be found on the Ecuadorian coast, consequently we must look to the archeological specimens from this region to enlighten us on this point. From La Tolita we have many specimens representing persons sitting on stools, but none of this type.

The only early account we have found extending the range of wooden seats southward beyond Ecuador is given by Father Cobo in his "Historia del Nuevo Mundo," where he describes the seats of the ancient

Peruvians as follows: "They do not have in their houses, seats, benches, or any kind of chairs, because all, men and women, sit on the ground, excepting the caciques or great lords, who, by favor and privilege of the Inca, use chairs inside and outside of their houses, the which are called *duho*, and they were little stools of wood, worked out of one piece, two hand-breadths (palmos) long, and one high, similar in their forms to an animal which has the legs short, the head low, and the tail high, for they are commonly given the figure of an animal. They have the upper surface concave in order to fit the body of the man."[64] Jimenez de la Espada, the editor, remarks in a footnote, that Father Cobo evidently forgot that the word *duho* is a West Indian term corresponding to the Quichua *tiyana*, and that the description which he has given corresponds exactly to the ancient *duhos* of Puerto Rico. Again, in another chapter, Cobo writes: "The King, when eating, was seated on a small stool a little more than a palm in height, that was the seat of the lords, called *duho;* they were of very handsome red wood, and they had them always covered with a delicate cloth, except when the Inca was seated in it."[65] The most important statement by Cobo relates to the use of seats by the caciques, and shows that their use was restricted to the lords or caciques along the western part of South America, and that they were not in common use among the great mass of people. He writes: "In the succession of lords, the Inca guarded this order, that, if the eldest son was capable and competent to be raised to the dignity of the chieftainship of his father, he was named for it, and given the *duho*, which was a little low seat or bench on which the caciques were seated to take possession of the chieftainship, and afterwards only they themselves used this seat."[66]

We give drawings of two ancient seats from Peru which have been found in graves, probably from ancient burial-places along the coast not far distant from Lima. The first specimen is illustrated in No. 17, Plate II. This stool, collected by Gaffron, is in the American Museum of Natural History. It is of hard, dark wood, and is 14 inches (35.5 cm.) long, $5\frac{1}{4}$ inches (13.3 cm.) high, and $10\frac{7}{8}$ inches (27.7 cm.) wide. It will be seen, by referring to the plate, that it is practically identical in shape with No. 14, the modern seat from the Cayapa Indians of Esmeraldas, Ecuador. It is of the same type as Nos. 13

and 15 of the San Blas Indians, Panama, and it is also closely allied to No. 16, part of the large pottery figure from the vicinity of Cape Pasado, Manabi. The other example from Peru, shown in No. 21, Plate II, is taken from a drawing in Wiener's work on "Perou et Bolivie."[67] As will be observed, this seat, which is of wood, has for a support two puma-shaped figures. Wiener states that these seats of wood (he apparently saw several) are from 8 to 11¾ inches (20 to 30 cm.) high. These two archeological specimens from Peru confirm the accuracy of Father Cobo's statements.

We have added to this series two other seats of stone of a general character. The specimen shown in No. 8, Plate III, may be a metate, but its massiveness and size would seem to indicate the possibility of its having served as a seat. It was in the Joseph Jones Collection, now a part of the Heye Collection, and the catalogue states that it is from Honduras. The three legs bring it into the Jamaican and Pacific coast class, but in some respects it is unique. It will be noted that the support of the higher end is a solid slab extending the full width of the stone, while the lower end rests on two legs. The measurements are as follows: Height at higher end, 15½ inches (39.4 cm.), lower end, 7¾ inches (19.8 cm.); length, 20½ inches (52.1 cm.); width, 13 inches (33 cm.).

The last example of a general character on Plate III is No. 10, taken from the work of Rivero and Tschudi.[68] It is from the vicinity of San Augustin in the upper Magdalena Valley, Colombia, and is held in the hands of a stone figure. We illustrate this specimen because our friend Mr. Gonzalez de la Rosa has called attention to it in a paper setting forth the results of our first expedition in Manabi based on the preliminary report.[69] Mr. de la Rosa is quite certain that we have here a representation of a seat or "altar" analogous to the Manabi seats. He furthermore is of the belief that the Manabi seats are portable altars for sacrifices in honor of the sun and moon. He calls attention to the fact that in Peru, seats were used only by the chiefs, a point which we have already brought out in our quotation from the work of Father Cobo. We may again repeat our opinion concerning these seats, in view of the mass of material which we have brought together on this subject, that they were ceremonial, and possibly that the animal

motif for a support represents an idol. In the series which we have brought out showing the gradual transition of the wooden seat into the stone seat, we believe we have established the primarily utilitarian character of the Manabi stone seat, and its probable use for ceremonial purposes in household sanctuaries.

HUMAN FIGURES. We have been unable to add any sculptures in stone, representing the human figure, which will materially enlarge the series published in the preliminary report. None have been obtained which show any degree of proficiency in delineating the human figure. They represent, as a class, quite crudely carved figures, either male or female, and in a standing or sitting position. The series illustrated on Plates XXVIII to XXX of the first report should be consulted in connection with the pieces recently added to our collection, and given on Plates XLII to XLV of the present monograph. There seems little reason to doubt that the human figures were either idols representing deities, or, as in the case of those having a cup-like depression or a plate-like expansion on the top of the head, served for burning incense on ceremonial occasions connected with the worship of their idols. As we have already stated, the stone sculptures, the seats, bas-reliefs, columns, and figures, were associated together and probably grouped with some definite arrangement in the corrales.

Of the human figures which have come under our notice, twenty are standing, while only eight are in a sitting position. The numerical predominance of the male figures over the female is marked, so far as we are able to determine, as many of the sculptures are crudely carved and much weather-worn. There are eighteen males and only six of the opposite sex. In the bas-relief class, however, there are but two figures which are probably male, in the whole series which we have illustrated. Again, in the supporting figures of the seats, all appear to be males, with a single exception. All of the upright figures stand on pedestals, and but two of the sitting figures are on seats. We find but one standing female figure. As a class, these figures are the least important of the Manabi stone sculptures, and present but little interest, with the exception of those which seem to indicate their use as incense-burners. These form a unique group, unlike any of which we know from other

parts of South America. The human figures in general are awkward in appearance, and exhibit no conception of proportion. As a rule they have the arms extended close to, and not separated from, the body.

On Plate XLII are three male figures, now in the Berlin Ethnographical Museum, which, through the kindness of Professor Seler, we are able to illustrate. No. 1 is almost a replica of No. 5, Plate XXVIII of our first report, only the head is in a perfect state of preservation, while ours is much defaced. The Berlin specimen has the most realistic and best preserved face of any of this class which we have seen. The nose is exceedingly well carved. The head has a cap-like covering, and there is a slight outward expansion at the top of the head, which is cupped. There is a loin-cloth around the waist. This is the largest figure which thus far we have seen from the region; but the two figures illustrated by Suarez in his Atlas Arqueologico Ecuatoriano, Plate 25, were undoubtedly much higher, although he gives no measurements. We were told in Papagayo, by the man who excavated the two figures last mentioned, that they were 36 inches (91.4 cm.) high. The Berlin figure is 28 inches (71 cm.) high. The pedestal is the most massive of any found in this class of sculptures, being $6\frac{3}{4}$ inches (16 cm.) high.

No. 2 of Plate XLII must be compared with No. 2 of Plate XXVIII of the first report. It is $14\frac{1}{2}$ inches (37 cm.) high, and of the same general character as the others of the same plate, except in a slight difference in the carving of the head, and in the band around the body under the armpits, which has two strips hanging down from it on the front, and extending to the knees. This is a feature of the figure of our collection to which we have just referred. There is a band representing a necklace around the neck, and ear-bobs are shown. The upward-expanding, low, flat-topped head has a cupped depression on the top.

A much weathered figure is shown in No. 3 of Plate XLII. It is slightly over 16 inches (41 cm.) high, is rudely carved, has no depression on the head, and, with the exception of a deep groove across the body near the hands, calls for no special comment.

The distinctive human figures which are illustrated in Nos. 3 to 5, Plate XXIX of the first report, are characterized by the presence of

a plate or bowl-like expansion on the top of the head, and they unquestionably served as incense-burners. No. 1 of Plate XLIII of the present report is practically identical in character with No. 3 of the plate just referred to in the first report, except that the surface is somewhat weathered. It is 15½ inches (39.4 cm.) high. The bowl, which was formerly a part of the head, is entirely broken off, and the edges have been smoothly trimmed with a machete by the person who found the sculpture. The conventionalization of the ears is like that seen in the other three figures of this group. Inasmuch as this treatment of the human ear is not found in any of the other figures, except those which have a plate-like expansion on the head, there seems to have been a definite design in this type of sculpture. Another point of interest is the treatment of the arms, which are separated from the body, the hand resting on the hip. We do not find this feature in other human sculptures. The specimen under consideration has a massive rectangular pedestal, while No. 3 of Plate XXIX of the first report has a somewhat circular pedestal. These four specimens, with those which we have already described as having cupped depressions in the flat surface of the upper part of the head, form two groups, which, as we have before stated, may be said to be incense-burners. All of the other human sculptures appear to have been idols pure and simple, and present none of the features of the two groups just mentioned. These groups are quite as characteristic, in their way, of the culture of the hills, as are the stone seat and bas-relief groups.

The much weather-worn, broken figure, No. 2 of Plate XLIII, is somewhat different from any of the other human figures of our collection. It was found in corral 17, Cerro Jaboncillo, and is 15 inches (38.1 cm.) high. The entire lower portion of the figure below the knees is missing. There is a double girdle around the waist, and a poncho-like garment covers both the front and back of the body down to this girdle. A cap-like covering is on the head, and there are extensions on each side of the face, covering the ears. The figure is so much battered that no further description can be given, but it appears that the arms were placed close to the sides.

No. 3 of Plate XLIII is very rudely carved, and probably represents a male sitting on a rough bench or seat. The hands are placed

on the abdomen, just above the knees. The treatment of the face is exceedingly simple, and this figure is the most primitive piece of sculpture which we secured on the second expedition. It is 13¾ inches (33.7 cm.) high.

The last sculpture, No. 4 on Plate XLIII, is a kneeling female figure. It is nude, and the hands rest on the knees. The lower part of the sculpture is missing. It is carved of the same stone as No. 4, Plate XXX of the first report, which is also a female figure. As will be seen by the illustration, this sculpture is rudely carved, and the deep peck-marks, the result of carving, are distinctly in evidence. The figure is 12½ inches (31.8 cm.) high.

On Plate XLIV we have brought together five other sculptures of the human-figure type. No. 1 is the most interesting, and resembles somewhat a column in its general treatment. It was found in corral 50, Cerro Jaboncillo, and is 15 inches (38.1 cm.) high. It represents a male figure standing on a rough column. The hands are on the side, placed slightly in front of the body, and a loin-cloth is shown. The head, which is carved quite thin from front to back, has broad cheeks, a large, well carved nose, an expansion over the forehead, and on the top of the head a knob projecting from the upper part. This sculpture is unique, and we have seen no other examples of this elongated type.

No. 2, Plate XLIV, is a headless crouching figure, undoubtedly human, and identical in conception with the crouching human figures of the seats. It rests on a broken pedestal which is the capital of a square column smaller in diameter at the base than at the top. The closed fists are placed on the pedestal. It is to be regretted that this sculpture is not complete, as it is probable that the figure supported some sort of a receptacle for burning incense. It is 9½ inches (24.2 cm.) high.

A roughly carved, standing male figure is given in No. 3, Plate XLIV. The head is missing, and the fragment is 8 inches (20.3 cm.) high. From the position of the extended arms on the sides of the body, the broad, almost square shoulders, and the pedestal, it seems probable that the head had a depression, and the figure belongs to the group we have just described, which served as incense-burners.

On the same plate, No. 4, is a portion of a female figure, the

fragment being 9 inches (22.9 cm.) high. The general treatment of this figure is cylindrical. The base is massive, and resembles that of No. 3, Plate XXIX of the first report. In fact, these two are the only standing figures which have circular bases. The fragment under discussion has exceedingly large legs, the entire part of the body below the waist being a column with grooves indicating the division of the legs. The feet are very primitive in treatment; the toes are not represented; and from the heels there is an expansion even longer than that of the front part of the feet. As will be seen in the illustration, the hands are represented on the sides. In general detail, this specimen is different from the others of this class in our collection.

The last sculpture represented on Plate XLIV, No. 5, is a seated female figure. It is 8 inches (20.3 cm.) high. Here, again, the treatment of the sculpture is, on the whole, rather primitive. The head, which is slightly raised, is characterized by a very large prominent nose, tiny eyes, and ears set well back on the head. The general shape of the head is of a truncated cone, the chin being prominent, while the top of the head is much smaller than the base, and flat. The arms are bent, and the hands are placed together on the chest, indicating an attitude of reverence or submission. The fingers are represented by deep grooves, and there are parallel lines around the wrists. The legs are characterized by large hips and very small lower limbs placed on the front of the pedestal-like seat, which is slightly concaved. The face, and outer part of the arms and legs, and the back, are smooth, the rest of the figure being roughly pecked.

These are the only human figures to be described, but on Plate XLV are several human heads. No. 1 is part of a column, being the square, hollowed-out receptacle at the top, with a small enframed human face on one side. It is much battered, but the face shows a broad band over the forehead, and a tiny ear-ornament is seen on the right ear. The fragment is 8 inches (20.3 cm.) in diameter across the top, and the same dimension in height. There is little doubt that this specimen should really be classed with the columns.

No. 2 of the same plate is a very well carved face with prominent aquiline nose, the lower part of which formerly contained a perforation, now broken off. The carving of the eyes and mouth is very primitive

in character. A broad band covers the upward-expanding forehead. It is impossible to determine definitely whether this face was part of a standing figure, or the head of a seat. It was probably, however, part of a figure.

A rude stone head shown in No. 3 is so much weather-worn that but slight traces remain of the eyes and mouth. The nose is broken off, and the back of the head, which was once attached to some figure, has been smoothed off in recent times. There is a small band over the forehead extending down to the ears, and tiny ear-bobs are shown. In general treatment, the head is somewhat different from the others in the collection.

A portion of the torso of a human figure is given in No. 4. This fragment contains only part of the body and a small section of the right arm, but it is rather interesting on account of the incised ornamentation which it bears. There is a three-strand necklace around the neck, and geometric patterns cover the rest of the body and arms.

An important specimen is shown in No. 5. It is a rude human figure carved out of a volcanic tuff pebble, and reminds us strongly of similar small sculptures, representing the human figure, from western Guatemala and southern Mexico. The rude human face, and arms resting on the lower part of the body, are features of the Guatemaltecan carvings and of the amulets and idols of the states of Oaxaca and Guerrero. This specimen is the only one of this type from Manabi, and, excepting another somewhat analogous stone from Guayas, the only one we have as yet seen from the west coast of South America.

The human figure shown in Nos. 6 and 7 is, in its way, a quite extraordinary sculpture. It is $5\frac{3}{4}$ inches (14.3 cm.) high, and is also carved in volcanic tuff. Resting on its base, the head appears thrown back at right angles to the body; the drawing, however, shows it so as to give a portion of the upper part of the head. It is a female figure, the arms being rudely carved below the breasts, and the lower part of the body is not represented with any idea of proportion. In the upper part of the head is a conical perforation nearly $\frac{1}{2}$ inch (1.3 cm.) in depth. The most singular feature of this carving, shown in the back view in No. 7, is the representation of a long tail running upward the length of the body, and ending in a single coil on the back of the head.

A very slight groove is also seen in the base. The lines of concretion of this pebble still remain in a number of places, not having been worked in finishing the sculpture. This specimen was found in the general digging of Mound 3, Cerro Jaboncillo, and did not appear to have been placed with any of the skeletons buried in that mound.

The last human figure is No. 8, and it was found in the general digging in corral 45. It is cut from a coquina limestone full of tiny marine shells and small pebbles, and, owing to the coarse character of the stone, it is very rudely carved. It represents a human figure sitting on some kind of seat with a slight back, the whole seat resting on a column. The body, which is bent, possibly represents a hunchback, but, owing to the position, this may not be the case. The chin rests on the hands, the elbows and the arms being on the knees, and the legs are under the body, the feet being placed against the upper part of the bent column under the seat. This specimen is about 16½ inches (41.9 cm.) high, and, with the exception of being very much smaller, is of the same general character as the rude sculptured human figures found in the vicinity of the corrales back of Manta. In general concept this sculpture is quite unlike the carved figures from the hills, and as the material originated on the seashore, being the stone forming the floor of the beach south of Manta, it is highly probable that the sculpture was brought from some settlement in the vicinity of Manta.

ANIMAL FIGURES. Figures of animals are not as numerous in Manabi as are sculptures in human form. In our first report we published several examples of animal figures, all of which apparently represented the puma or tiger. We have added several new examples of animal figures to our collection, and one new group, that of a bird, which will now be described. On pp. 20, 21, of the first report, we called attention to two sculptures in Manta, in the Casa Tagua. These two specimens are illustrated in Nos. 1 and 2, Plate XLVI of the present monograph. We shall not add any further description than that which we gave previously, but will say, while very likely they may be llamas, there is also a possibility that birds are represented in these unique sculptures.

In the description of corral 1, mention is made of two large stone

tiger-heads, and on Plate XVII is a photograph of one of these heads *in situ*. The other head, which was removed to the hacienda building, is shown in drawing No. 3 of Plate XLVI. These two heads are the largest of this type of sculptures found in Manabi, and were probably placed in the corral in connection with stone seats and columns. They were undoubtedly idols.

The small fragment of a tiger or puma face given in No. 4 of Plate XLVI shows the mouth of the animal with a double row of teeth and prominent canines. It is almost identical with the puma-head shown in No. 2, Plate XLVII, and was probably part of a figure of similar character.

The illustration in No. 5, Plate XLVI, shows one of the most extraordinary sculptures which we saw in Cerro Jaboncillo, but which we were unable to secure. As will be seen, it represents a crouching animal, its tail placed up over the back between the two hunches, and ending in a single coil. The head is broken off, but the whole figure was undoubtedly a puma or tiger. A singular feature of this sculpture is the large circular hole in the back, running through the entire sculpture. Recalling the puma-shaped figures with columns on the back, of which we have given several illustrations in both reports, it will be seen that there is a strong probability that a column of either stone or wood was placed in this opening to support a vessel of some kind for ceremonial purposes, such as burning incense, or for making offerings. This would bring the sculpture into the class of objects illustrated on Plate XXXII of the first report and on Plates XLVII and XLVIII of the present monograph.

In describing No. 6 of Plate XLVI, we must call attention once more to our statement on p. 20 of the first report, regarding the disintegrated stone sculptures in the corrales back of Manta. The specimen under consideration represents a seated figure cut in coquina, and which was probably modelled after a monkey. There are some indications of a tail rising on the back of the seated animal. The whole sculpture is much disintegrated, and parts of the extremities are broken off. The drawing is made from a photograph, and is here presented as an example of the sculptures found in corrales in the vicinity of Manta. The last specimen of miscellaneous sculptures on Plate XLVI is No. 7,

which is the head of a bird-like figure found in corral 50. This should be studied in connection with the bird-figures on Plate XLIX, which will be described later.

The group of puma-like figures from Cerro Jaboncillo, shown on Plate XLVII, is a continuation of the series illustrated in Plate XXXII of the first report, and belongs to the same general type. The first example, No. 1, is simply the head of one of these sculptures. The features of this head are better and more realistically carved than any of the other puma-like figures from Manabi.

The two specimens shown in Nos. 2 and 3 of this plate are almost identical in conception with No. 1 of Plate XXXII of the first report. No. 2 is complete, and the carving is the best of any of this series. It is $8\frac{1}{4}$ inches (21 cm.) high. The head is thrown forward; and the back, which is flat, presents a surface which might have supported a column or vessel. The tail is curled around the left hind leg. The front legs are somewhat human in character, resembling the arms of some of the crouching human figures supporting seats, and the claws or toes are placed on the front of the pedestal on which this crouching animal rests.

No. 3 is of the same general type, representing a crouching puma-like figure. The back is broken off; and the whole sculpture, of soft sandstone, is much disintegrated. It is $8\frac{1}{4}$ inches (21 cm.) high.

The next figure of the series is No. 4, but it is so weather-worn and battered, that the puma-like features of the head can hardly be distinguished. The crouching figure rests on its belly, on a very thin pedestal, the back supporting a square column which gradually diminishes in diameter toward the top, being broken at the upper part. Its extreme height, to the top of the column, is 12 inches (30.5 cm.), and it is 10 inches (25.4 cm.) long. It is impossible to say whether the upper surface of the column was hollowed out, or grooved. There is a probability that it was flat, and served as a support for a small vessel. In the first report, in No. 6 of Plate XXXII, will be found a rude sculpture of somewhat similar character, with the broken column on the back.

COLUMN ON ANIMAL'S BACK. Belonging to this same group of crouching animal figures with columns on the back, are Nos. 5 and 6 of Plate XLVII. In each case the column is round, and

broken off slightly above the face. No. 5—which is 8 inches (20.3 cm.) high, 11 inches (27.9 cm.) long, and 8½ inches (21.7 cm.) wide—represents an animal resting on a pedestal, the head being entirely broken off. The claws of the animal are well delineated. No. 6 retains a portion of the head, but the features are battered. It is 8½ inches (21.7 cm.) high, 9 inches (22.9 cm.) long, 7½ inches (19.1 cm.) wide, and rests on a well defined pedestal. These figures are identical, so far as the fragments indicate, with the complete sculpture, Nos. 3 and 4, Plate XXXII of the first report. This last-named specimen has an unbroken column on the back, which ends in an expansion forming a bowl or receptacle with a rim, and having a blackened surface on the inner part. Each of the two specimens here under consideration had, undoubtedly, a basin similar to that of the example just mentioned and previously illustrated.

There is in the Berlin Museum a sculpture of this type,—a crouching animal figure with column on back. It is about 8¾ inches (22 cm.) high.

The most interesting and best preserved of the sculptures of this class which we have added to our collection since the publication of the first report, is shown in Nos. 1 and 2, Plate XLVIII, being the front and side view. It is in a perfect state of preservation, and is 14¾ inches (37.5 cm.) high. It should be compared with Nos. 3 and 4 of Plate XXXII of the first report. The crouching puma-like animal rests on a circular pedestal, and rising from the back is a cup-shaped column having on the top a cavity 2½ inches (6.3 cm.) in depth. The column-like receptacle reminds us of the *queros* or *keros* of the Andean region. Decorated *queros* are found in the interior of Ecuador in large numbers, especially in the province of Chimborazo; and cups are generally called by this name by the Quichua-speaking Indians of the interior provinces. We have no typical *queros* from the coast. The geographical distribution of the characteristic quero-shaped cup, we shall consider in our account of the archeology of the interior provinces. We may remark, however, in passing, that this form is typically Peruvian and Bolivian: in fact, the name is Aymara, as Bandelier has recently pointed out.[70] The peculiar form of our sculpture, the puma bearing a column or quero-like receptacle, is, so far as our present

knowledge goes, confined to the province of Manabi, and is, perhaps, the one strictly Peruvian feature of Manabi art. This is well brought out by a comparison of the wooden goblet shown in No. 3 of the same plate. It is 9¼ inches (24.9 cm.) high, and is taken from Plate 159 of Baessler's great work, "Ancient Peruvian Art." He describes it as follows: "From a dark hard wood is carved a puma-like figure which carried on its back a huge goblet out of all proportion with the size of the animal. The animal rests on a low round pedestal above which the paws extend. The goblet is smooth, while the animal and pedestal are overlaid with a large number of small, round inlaid plates of mother-of-pearl, and diversely colored bits of shell."[71] This specimen is from Chimbote near the coast, considerably north of Lima and about six hundred miles south from Manabi.

Regarding the significance of the identity in motif of the two examples figured, we must take into consideration the general character of the objects in our collection from Manabi. We may safely assert, that, with one or two exceptions, the art of Manabi is quite different from that of the coast of Peru. We shall demonstrate, in another part of this monograph, that the ceramic art is entirely different from that of Peru and of the interior of Ecuador, with the exception of the vicinity of Quito, where our investigations have not as yet been extended, and with which central culture we are not able to compare our coast collection, owing to lack of well authenticated material in museums. The typical forms of sculpture of our province are confined strictly to that region, hence we might hazard the opinion of the possibility of an influence from the present province of Manabi, southward along the Peruvian coast, in pre-Inca times. This is all we venture to say at the present time. We hope, however, when our researches in the northern and southern interior provinces of Ecuador are concluded, and the material has been worked out for publication, to be able to throw more light on the subject. If we had collections available for study from the province of Guayas, and from Tumbez and the adjacent region of northern Peru, the question would be easier to solve. Lacking this material and documentary evidence, we are unable at present to come to any definite conclusion concerning migrations to or from Peru to this region in pre-Inca or pre-Quichua times.

BIRD-FIGURES. A new type of sculpture added to the collections from Manabi by the second and third expeditions, is that of bird-figures. We saw a number of more or less broken examples of this type, and secured four fairly complete specimens. We have already referred to the discovery of two bird-figures, and the other two specimens were secured by purchase, and came from the same hill, namely, Cerro Jaboncillo. One of these specimens is illustrated in Nos. 1 and 2, Plate XLIX, being front and side views of the sculpture. It is 10½ inches (26.7 cm.) high; breadth across the wings, 5½ inches (13.6 cm.); length, from point of beak to end of tail, 10 inches (25.4 cm.). This bird is different in treatment from the other specimens and fragments which we have seen. As is usual in this type of sculptures, the point of the beak is flattened and the legs of the bird are indicated at the base of the very slight pedestal on which it rests. This sculpture, as well as the others of this class, is carved out of the same stone as the majority of the seats and bas-reliefs from Cerro Jaboncillo, namely, andesite. The other birds of this group are placed on massive pedestals.

The next example, shown in Nos. 3 and 4, Plate XLIX, is somewhat damaged, the breast being broken off and also a portion of the pedestal. This bird, unlike the others which we illustrate, has a pointed beak, and the eyes are protruding nodes. The wings are placed against the sides of the body in a conventional manner, and the legs are not represented. The bird is undoubtedly a vulture, possibly the condor. It is 15 inches (38.1 cm.) high, and the pedestal is 8 inches (20.3 cm.) wide.

The last example of our own collection which we illustrate, shown in Nos. 5 and 6 of Plate XLIX, is more complete than the others, with the exception of a small portion broken off on the back of the pedestal. In this bird, legs are represented and the point of the beak is flattened. It is 15½ inches (39.4 cm.) high, and the pedestal is the same size as the preceding specimen just described.

The bird-sculpture not illustrated is from Cerro Jaboncillo. The head is much battered, and a part of the breast is broken off, as well as a portion of the pedestal. It is like Nos. 3 and 5, and is slightly higher than the other specimen, being 16½ inches (41.9 cm.) high.

We illustrate in Fig. 9 a bird-sculpture in the Berlin Ethnographical Museum. Just above the base it was broken into two pieces,

but is, however, practically complete. It is probably from Cerro Jaboncillo, and is larger than our specimens, being 17¾ inches (45 cm.) high, and 9 inches (22 cm.) wide across the base. As will be seen, it is practically identical in carving with the bird-sculptures of our collection, with the exception of the occurrence of a disc in relief, containing in the centre a raised design so much obliterated as to render impossible an identification of the motif. This disc is on the front of the pedestal, and recalls to our mind the copper discs with puma-like face in relief, which we illustrated in our preliminary report, and also the discs on the bas-reliefs. The four analogous specimens are all characterized by the massive pedestal, and they bear a groove on the back of the bird, extending down to the base of the pedestal. At the lower part it is quite deep, but it gradually runs out on the back of the bird, a little below the neck.

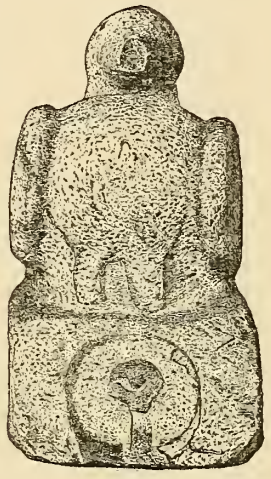


Fig. 9.

In connection with these sculptures, we call attention to the head illustrated in No. 7, Plate XLVI, which we believe to be that of a bird, though of a different species from the two just described, as the details of the head are different. The eyes are raised slits, and the beak is a ridge running from the top of the head to the mouth, gradually decreasing in width to a point over the mouth. It was found in Cerro Jaboncillo.

These birds must have been associated with the puma-like figures and other sculptures in the corrales, and may have been worshipped as the image of some bird deity. As many birds are represented on spindle-whorls, and as they are found in some of the groups of bas-reliefs, we believe that bird-sculptures were relatively of common occurrence in the hills in former times.

COLUMNS. On Plate L are illustrated additional examples of columns. It will be seen that No. 1 differs somewhat from any of the columns illustrated on Plates XXXIII and XXXIV of the preliminary report, the upper part of the flattened cylinder being an uncarved capital.

This specimen is 15½ inches (39.4 cm.) high, and has an extreme diameter of 8 inches (20.3 cm.) at the top.

No. 2, Plate L, is a square column somewhat like No. 4, Plate XXXII of the preliminary report; but it differs in having the upper part circular, thus forming a massive capital which would serve as a support for objects used in religious ceremonies. It is 17 inches (43.2 cm.) high.

No. 3, Plate L, is almost identical in shape with No. 4, Plate XXXII of the preliminary report. The design on one side is nearly the same as that on the side of the column illustrated in No. 3, Plate XXXIII of the preliminary report. It is 15 inches (38.1 cm.) high. We found or excavated a number of more or less fragmentary columns of the same shape, but without the design on one side.

The most interesting and important of all the columns here collected is illustrated in No. 4, Plate L, as it undoubtedly reveals the true use of the column. We call attention here to a statement which we made on p. 61 of the preliminary report, in regard to the columns: "We may, however, surmise, bearing in mind the crouching animal on the concaved column (Nos. 1 and 2, Plate XXXIII), that they were used as supports for the statues or idols and animal figures; or they may have served as pedestals for pottery incense-burners."

In general treatment, the column under consideration is different from any others in the collection. It is not cylindrical, and rests on a slight pedestal. The upper part, forming the capital, bears on one side, in bas-relief, a representation of an insect, probably a tarantula, but very much conventionalized; and on each side, between the sets of legs, is a winged-like object with a serrated edge. This is the only representation of an insect which we have found in the art of Manabi. The most important feature of this column, however, is not the representation of an insect, but a hollowed-out cavity on the top, which could have been used only for ceremonial purposes, and which connects the separate columns with the group of sculptures described in our comments on the specimens illustrated on Plate XLVII. It is 17½ inches (44.5 cm.) high, and the cavity is 1 inch (2.5 cm.) deep.

We now come to a group of columns quite different from any we have heretofore described, and of which we did not succeed in getting

examples on the first expedition. These columns, illustrated on Plate LI, are, if we have placed them right on the plate, different from the other columns in this respect; namely, that they are larger in diameter at the base than at the top. It will be noted that all the examples of this type of sculpture, with the exception of No. 1, have a groove running across the upper, smaller end. Columns with this feature were comparatively common, and we have a number in the collection which we do not illustrate.

In No. 1, Plate LI, is illustrated the single column with the flat top. It is a perfectly plain, square column, gradually diminishing in size toward the top. It is 16½ inches (41.9 cm.) high, 6½ inches (16.5 cm.) in diameter at the base, and 3¾ inches (9.6 cm.) in diameter at the top. We found many similar specimens.

No. 2, Plate LI, is identical in shape with the preceding specimen, the only exception being the groove on the upper part. It is 15¼ inches (38.7 cm.) high.

The next specimen of this group, No. 3, Plate LI, is 14½ inches (36.8 cm.) high, 8½ inches (21.7 cm.) in diameter at the base, and 4 inches (10.2 cm.) in diameter at the top. The sides are considerably concaved, and there is a groove at the top.

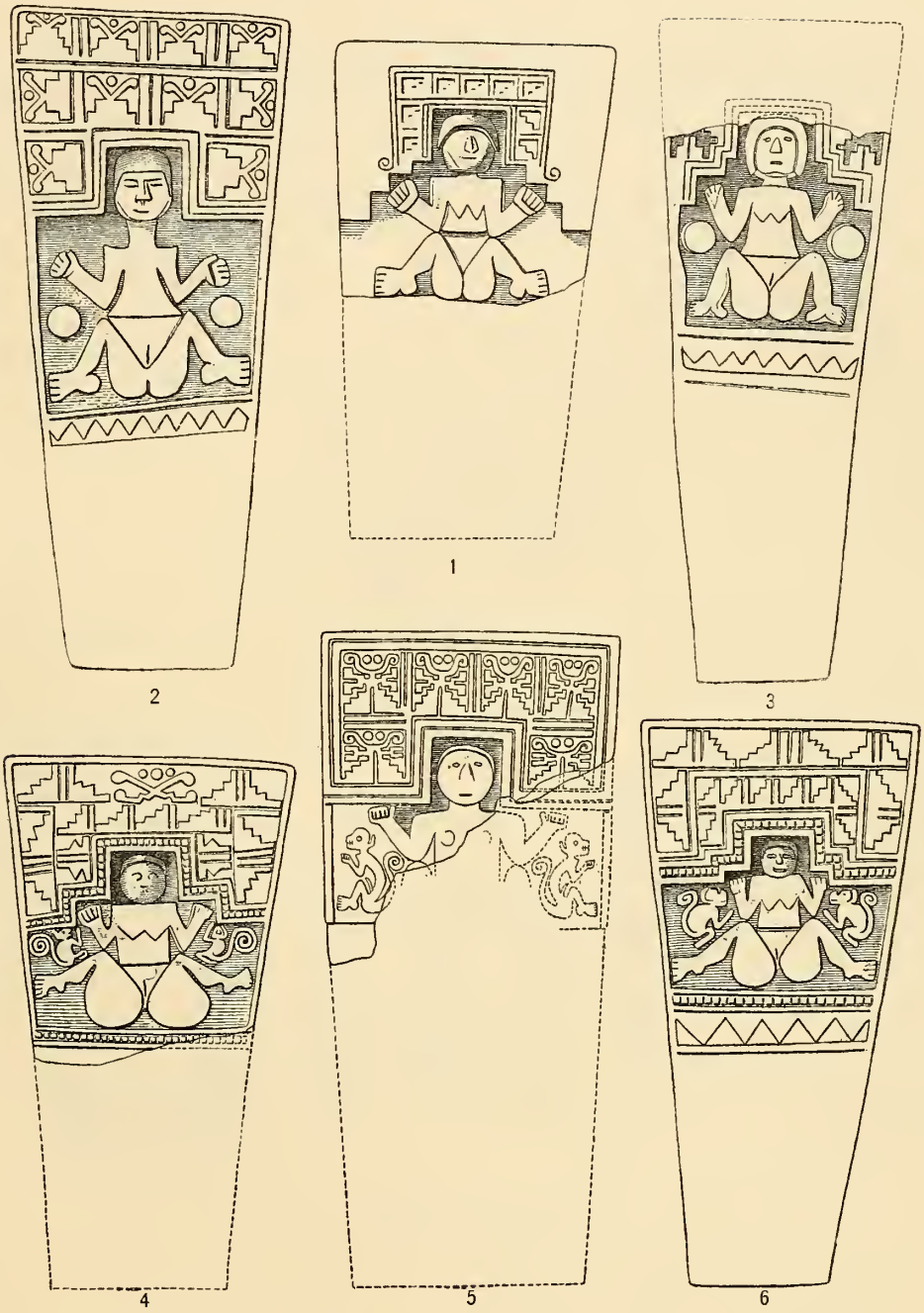
No. 4 is another type of this class of columns. It is 14 inches (35.5 cm.) high. The question arises as to whether we are right in the way in which we have placed the columns, especially No. 1 of Plate L, which, when reversed, is quite similar, with the exception of lacking the groove, to the one under discussion. We believe we are right, however, in dividing the columns on Plate LI into a group by themselves, as the presence of the groove indicates that this smaller end was used either as a receptacle for a vessel, or, more probably, to support a rod or pole, in order to make a stand or table, these columns forming the legs. In this connection we may mention that we collected, but have not illustrated, a long stone rod which was found in corral 50. It is not complete, but the piece which we have is 27 inches (68.5 cm.) long. The sides are roughly squared, and it tapers from one end to the other, the smaller end being quite thin, with a groove across the narrower side. Its length shows clearly that it must have been set into the ground, and, with companion rods, served as legs for a table or

altar. We repeat, that we believe these columns on Plate LI were used for the same purpose, and we shall refer to this point again when describing other stone objects on Plate LX. No. 4 of this plate, to which we have already referred, has a pedestal-like base; and the same is true of Nos. 5 and 6. No. 5 has a large pedestal and a somewhat olla-shaped middle section, the upper part of which expands like the rim of a vessel, bearing a small, grooved, rectangular section. It is 12½ inches (31.8 cm.) high. No. 6 is in three sections. The lower part, in the shape of a truncated pyramid, supports a flattened, globular section, upon which rests a grooved block somewhat smaller in diameter at the base than at the top. It is 10 inches (25.4 cm.) high.

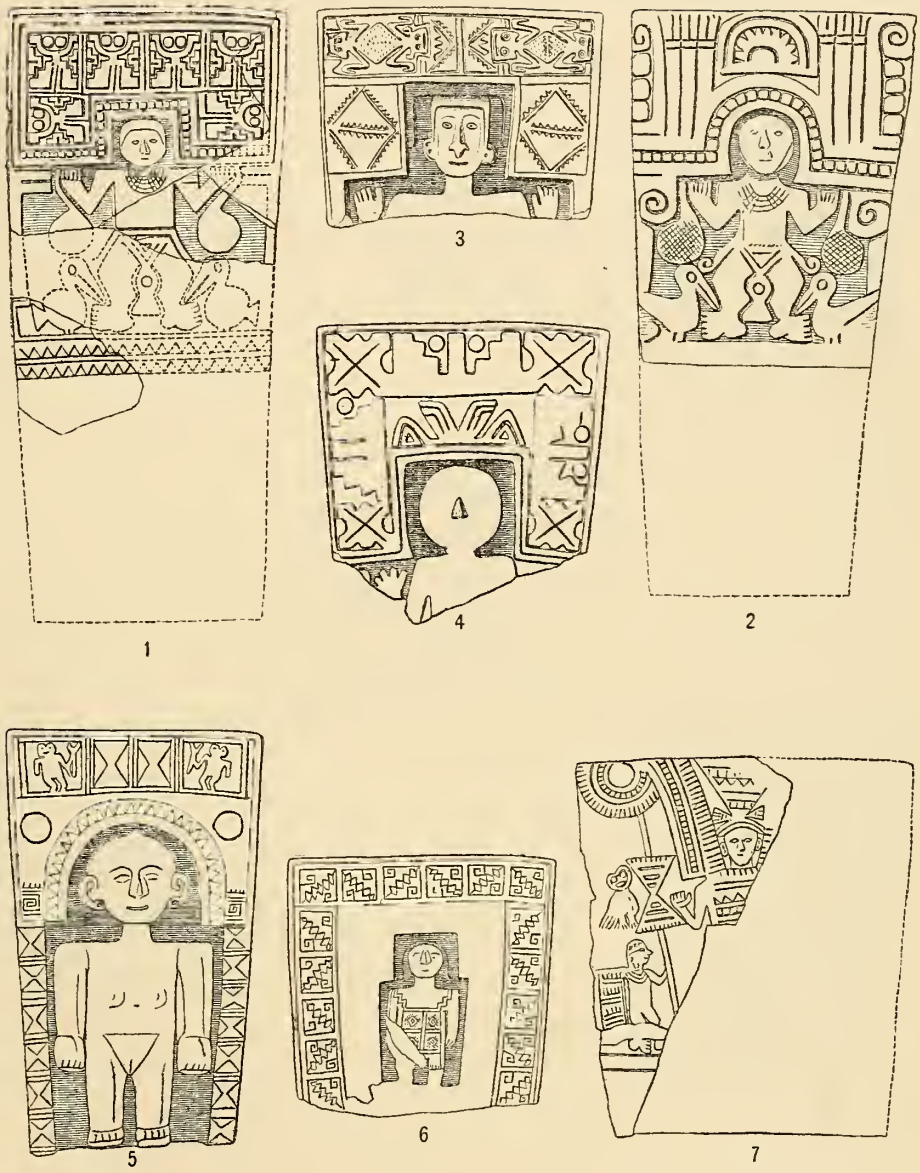
No. 7 is the smallest of this class of sculptures, and has no pedestal. The resemblance of the lower section to an olla is striking, and it has, rising from the part which resembles the rim, a short, deeply grooved column. It is 8½ inches (21.7 cm.) high.

BAS-RELIEFS. This type of sculptures was represented in the first report by several fragments of slabs. Some of these were more or less complete, in so far as the carved surface is concerned. They were nearly all from Cerro Jaboncillo, and were purchased from the natives, in the vicinity of the hill. During our excavations in the corrales on the top and spurs of the hill, in the summer of 1907, we discovered other fragments of carved slabs; and these now enable us to make a more extended study of this very interesting type of sculptures, and to draw some deductions as to their significance.

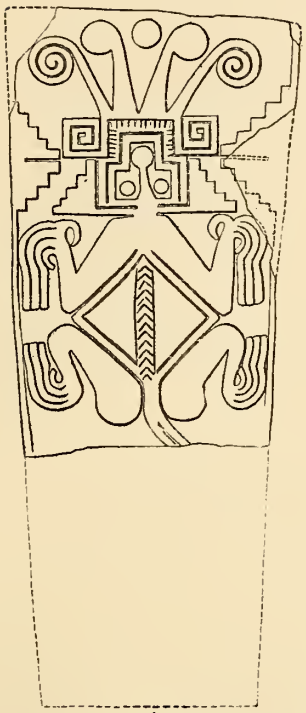
It seems probable that the bas-reliefs were not as numerous as the seats, but the occurrence of fragments in many of the corrales shows that they were not at all uncommon. We secured for our collection, either by purchase or from our excavations, every fragment which bore any traces of carving. The plain, uncarved pieces discovered were far greater in number than those which had been sculptured. These were ascertained to be the lower ends of the slabs, and show that all the bas-reliefs had a plain, uncarved lower section, which was set into the ground up to the line of the carving. It is thus made clear that these sculptures were idols, placed upright in the ground, after the manner of gravestones in a modern cemetery, and occupied positions in the corrales

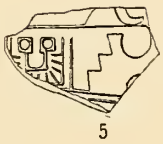


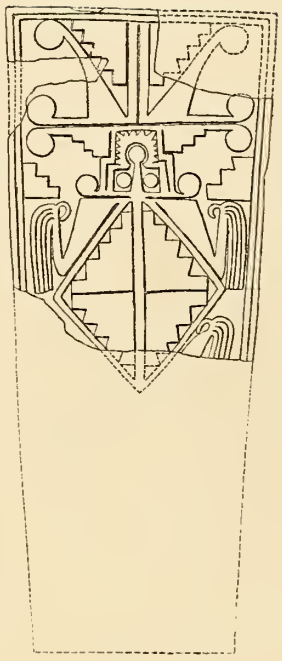
Bas-reliefs from Manabi.

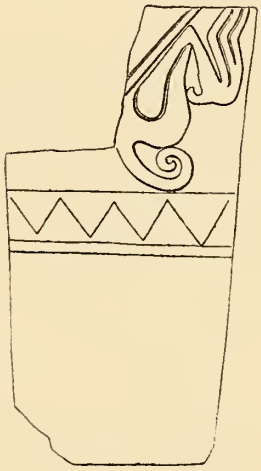


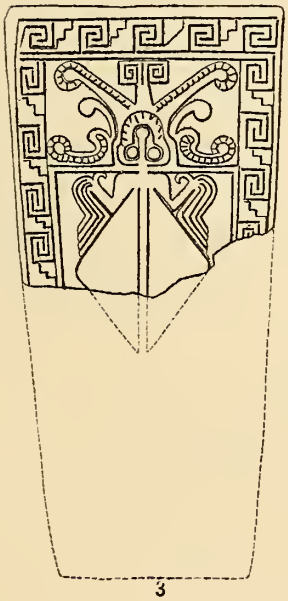
Bas-reliefs from Manabi.


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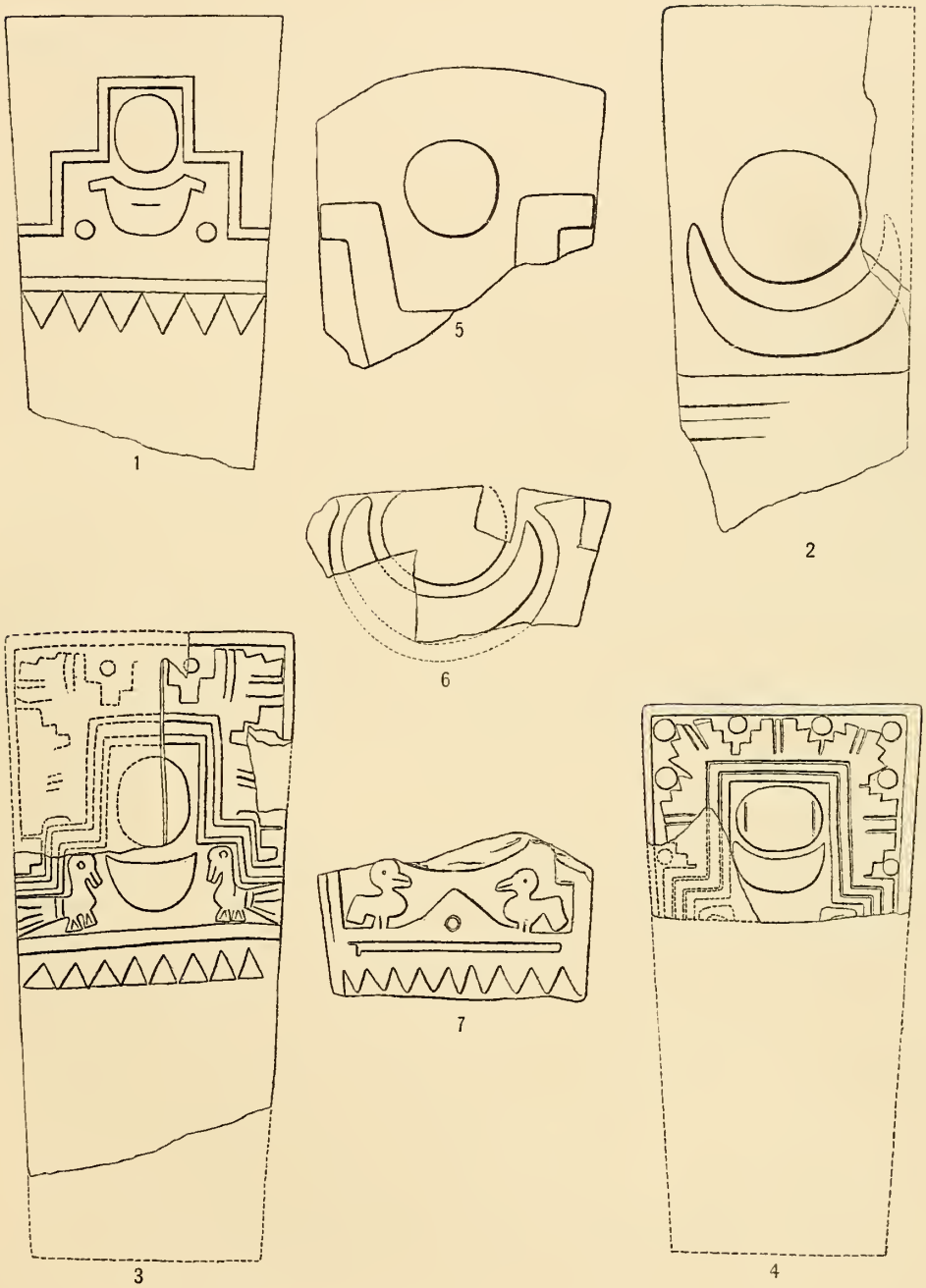

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Bas-reliefs from Manabi.



Bas-reliefs from Manabi.

associated with the seats and other sculptures. In the few specimens, it will be noted that the plain base is the shorter end of the slab, as well as the narrower in width across the face.

The entire absence of complete unbroken specimens, the finding of fragments of the same slab in various parts of the corrales, but, above all, the fact that no slab was obtained unbroken, leads us to believe that one of two reasons may be advanced to account for this condition of the bas-reliefs,—either the slabs have been broken up by the natives in their search for suitable material to serve for metates; or there was a deliberate destruction in precolumbian times, by the Indians, of this class of sculptures, as, in the same corrales, seats, columns, animal and human figures, have been found unbroken.

The bas-reliefs, so far as our investigation will permit us to judge, have not been found in Cerro de Hojas, but are especially numerous in Cerro Jaboncillo. Only three slabs were secured from other sites. Two fragments were purchased in Manta, which are said to have been found near La Roma, in the range of low-lying hills to the south of Manta. A single bas-relief was secured from Cerro Jupe, a hill lying considerably to the southwest of the town of Monte Cristi. The two slabs of the La Roma district are of a rough stone with the surface very much disintegrated; while the Cerro Jupe specimen is carved from a fine-grained sandstone, and in general treatment varies considerably from those found in Cerro Jaboncillo.

From the specimens which we have brought together, it is possible to study them in nine groups. The first five groups represent female figures, while the sixth and seventh groups may, or may not, be females. The eighth group represents a complex animal figure. The ninth group represents a disc and crescent. The preponderance of female figures indicates that a goddess is represented. In this connection we may cite the statement of Garcilasso regarding the great emerald in the region of Manta, which was worshipped as a goddess, and called Umiña. It is related by Velasco, that the deity called Umiña was made of a large emerald with the figure half human. This is the only reference which we have found to a goddess in Manabi, although the old writers state that the ancient people worshipped the sea, fishes, tigers, lions, and snakes, as well as the great emerald.[72]

The first four divisions of this class represent nude female figures sitting with the knees bent up toward the body and the heels close to the thighs, the lower limbs being spread open, back to the sides of the body. The arms are bent, with the hands raised upward, approximately on a level with the shoulders. In every case, there is a deep incision running entirely across the abdomen, giving the appearance of a triangle to the part of the trunk below the line, and separating it from the upper part. This peculiar feature would seem to have had some significance, although it might represent a crease in the skin caused by the contracted position of the legs against the thighs. In few instances is there any attempt to represent the true proportions of the body; and in all of the slabs the feet appear quite conventionalized, as shown in the enormous heels. The four groups of the sitting nude figures are as follows: first, the figure without any accompanying sculpture, with the exception of an upper enframing design, which, with variations, is found on nearly all of the different groups of bas-reliefs; second, the figure with a disc or dot near each side of the body, opposite the knees and elbows; third, the representation of a monkey at each side of the body, in place of a disc; fourth, the figure sitting on a seat.

The position of this nude female figure, sitting with open legs, presents a somewhat striking analogy to the representation of a Nahuan deity of Mexico given in Codex Borbonicus. It is on a page of the Tonalamatl, the ritualistic book of divination of the ancient priests.[73] We have a number of interpretations by early writers regarding the significance of this goddess. It is the Goddess Tlaçolteotl, literally "goddess of dirt," or of lust, sensual love, patroness of adulterers, and in reality the goddess of love, or the Mexican Venus: hence it is the deity of all things pertaining to sexual relations, and of procreation, and is considered by Seler to be a deity of the earth.[74] It is possible that we have in these Manabi slabs a deity with corresponding attributes.

The fifth class is a standing female figure, and of this we have two examples; one nude, and the other with a tunic-like garment held by straps on the shoulders, and extending down below the knees. The sixth division consists of a standing figure characterized by a bag held in each hand, a bird opposite each leg from the foot to the knee, and clothed with a garment around the waist, hanging down between the

legs. This loin-cloth is not a woman's costume, and the two examples of this type probably represent a male. The seventh class is represented by a single fragment quite different in character from any of the other bas-reliefs. The other two divisions of the bas-reliefs are,—eighth, a composite animal figure, of which examples were described and illustrated in the first report; and, ninth, the representation of a disc above a crescent, one fragment of which was published in No. 6, Plate XXXVII of the first report.

A feature of practically all the bas-reliefs is a serrated band under the sculpture, below which the entire surface is without carving. As we have already stated, an ever-present, enframing design of varying character occupies the space at the upper part of the slab, above the central carving, excepting in the slabs of the seventh and eighth groups, and even in one of the bas-reliefs of the eighth group it occurs. There are a number of very interesting fragments of different slabs, which, owing to their incompleteness, we are not able to include in any of these classes. Several of these show variations in the designs above the head of the figure. In enumerating all of the fragments, and the more or less complete slabs in our collection, we find that we have a total of fifty specimens, and the single incomplete slab in Paris, and a fragment of another slab in Berlin. It seems evident, in view of our very thorough search, and of our excavations carried on in Cerro Jaboncillo, that we shall receive very little additional material illustrating this type of sculptures from Manabi.

We may briefly describe the four elements of these sculptures as follows: upper enframing section; figure, a monster, disc and crescent, seated human figure, or standing human figure; the serrated band or bands; and the lower uncarved section, designed to be placed in the ground. We will now describe in detail the several groups of bas-reliefs as we have subdivided this class of sculptures. They will be found illustrated in the outline drawings on Plates IV to VII, and in the photographs, Plates LII to LVIII.

In No. 1, Plate LV, the fragment of a slab of the first group is illustrated. The head and part of the body, including the hands, are missing, as well as the greater portion of the plain, uncarved base. Owing to the light, compact character of the stone, the carving of the

figure appears in quite high relief, and the lower limbs are in better proportion to the rest of the body than is generally the case in the female figures. The breasts are but faintly indicated, and apparently do not hang down. Below the figure are two parallel lines, but there are no serrations, this being the only bas-relief which shows any portion of the uncarved base where the toothed design is not present. The fragment is 13 inches (33.8 cm.) high, 15 inches (38.1 cm.) wide at the top, 12½ inches (31.8 cm.) wide at the base, and 2½ inches (6.3 cm.) thick. From corral 45, Cerro Jaboncillo.

No. 1, Plate LIII, also shown in No. 1, Plate IV, is carved from coquina-like stone, and is complete down to the part below the sitting figure. The head is surrounded by an enframing design, consisting of a series of nine terraced patterns, enclosed by two faintly incised parallel lines, ending in small spirals. There is a plain space above, to the top of the slab, and a considerable space left uncarved on each side. Immediately below, at the lower end of the pattern, the space in lower relief, occupied by the upper part of the figure, is outlined by a serrated border which runs diagonally to each side of the slab, opposite the elbows of the figure. The head is covered by a turban. The ears are not represented, and the rest of the features of the face are quite indistinct. In place of the incised line across the abdomen, the triangular-shaped part of the body below the waist is represented in low relief, the upper section of the trunk ending in a decided ridge. The figure has hanging breasts, and the upraised hands are clinched, with the palms outward. It is 16½ inches (41.9 cm.) high, 18 inches (45.7 cm.) wide at the top, 15½ inches (39.4 cm.) wide at the base, and 2 inches (5.1 cm.) thick. This is one of two slabs from the hills near La Roma, south of Manta, and they are the only two specimens of this class characterized by the absence of any accompanying design opposite the sides of the figure.

The next group is represented by three examples, both being nude, sitting, female figures with a disc or dot opposite the knees and elbows. In No. 1, Plate LII, also shown in the outline drawing, No. 2 of Plate IV, we have the most important, as it is the only complete, example of the bas-relief from Manabi; and it furnishes us with the means of restoring this general type of sculptures. It was excavated in corral 29,

Cerro Jaboncillo, and was found broken into nine pieces. The surface of both front and back is somewhat weather-worn; but otherwise the slab is not injured, and the carving is clear and distinct. The upper enframing design is repeated ten times, and is a slight variation of the pattern given in Figs. 7 and 8 of the first report, and here included in the series, Figs. 10 to 16, being Figs. 14 and 15. The identical pattern

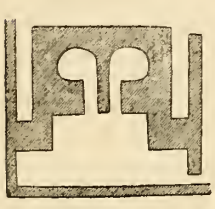


Fig. 10.

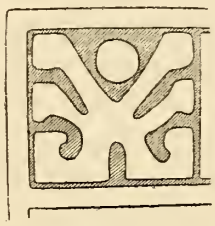


Fig. 11.

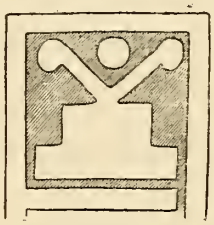


Fig. 12.

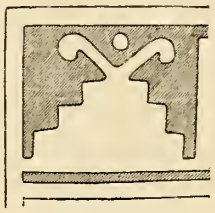


Fig. 13.

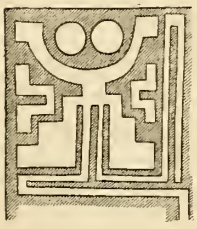


Fig. 14.



Fig. 16.

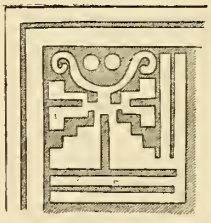


Fig. 15.

is found in a fragment of a slab in the Berlin Museum. The difference between the two designs will be noted readily by the occurrence of an angle for the curve seen in the first two figures, and by a single dot in place of two dots. A similar motif found in the bas-relief, No. 4, Plate IV, and given in Fig. 16, has three dots and a slightly different base. We are unable to come to any definite decision regarding the meaning of the motif. It somewhat resembles a seat, but the conventionalization of the last figures of the series renders this identification extremely doubtful. It may possibly be the symbol of the animal monster of the slabs, as the general treatment will be noted in combination with the terraced design, and there are in reality very few motifs in the art of Manabi, outside of designs on the spindle-whorls. We have called attention, on p. 63 of the first report, to this design, and suggested that there is a possibility that a conventionalized face is represented.

The seated female figure resembles quite closely the others of the slabs, with the exception of the absence of the hanging breasts, and the better proportion of the thighs to the trunk. Below the body is a band with a line of serrations, which is, as has been stated already, undoubtedly a feature of the greater number of these bas-reliefs. It is 39⅜ inches (1 m.) high, 16⅜ inches (41.6 cm.) wide at the top, 9¾ inches (24.9 cm.) wide at the base, and 2 to 2¾ inches (5.1 to 7 cm.) thick. The plain, uncarved surface of the base is from 13 to 13⅓ inches (33 to 34.3 cm.) high, leaving about 26 inches (66.1 cm.) covered by the carving, showing that a third of the entire height of the bas-relief is without carving, and represents the portion set into the ground.

The second bas-relief of this group, which is characterized by a disc accompanying the figure, was illustrated in No. 2, Plate XXXVI of the first report, and also described. On Plate IV, No. 3, the restored outline is now given. As first published, it lacked a base, which was found broken into two pieces, and was excavated in corral 29, where the other bas-relief of this class was also discovered. In the section of the base secured by our excavation is the band containing the line of serrations. The motif in the enframing pattern on the top of the slab is a simple terraced design, like those found in several other slabs. It is the thickest of all the bas-reliefs from Cerro Jaboncillo, and the dimensions are as follows: Height, 33½ inches (85.1 cm.); width at top, 13¼ inches (33.7 cm.), at base, 8 inches (20.3 cm.); thickness, 3⅜ inches (8.6 cm.). The uncarved base in the section of the slab which we have, occupies more than half of the front surface; and in our restored drawing it will be observed that only little more than half of the slab is devoted to the sculpture, this being the only bas-relief with such a long uncarved base.

The third example of this group was excavated in corral 18, Cerro Jaboncillo. It is illustrated in No. 2, Plate LV, and contains the entire base and body of the figure. The upper section, including the entire enframing design and the head of the figure, is missing, being broken off just above the hands and across the neck. In all the details it is identical in treatment with the other two just described. On each side of the hand is a slight ridge, inside of the line framing the figure, which is the lower part of the enframing design, seemingly indicating

a stepped treatment of the upper sculpture framing the head. It is 32 inches (81.3 cm.) high, 15½ inches (39.4 cm.) wide at the top, 9½ inches (24.2 cm.) wide at the base, and 2¼ inches (5.8 cm.) thick. The plain surface of the base is apparently less than a third of the entire length of the slab.

The third group of the nude figures, with a monkey opposite the knees and elbows, is represented in the collection by five specimens, and to this group also belongs the fragment of a slab preserved in the Berlin Museum. The first to be described is practically a complete slab, and is illustrated in No. 2, Plate LII, and in the outline drawing, No. 6, Plate IV. The only part missing is a very small section on the left side, at the upper part. It is considerably broader at the top, in proportion to the base, than many of the slabs. It will not be necessary to describe this specimen in detail, as the illustration will show the various features of the bas-relief. The enframing design above the head consists of a series of terraced patterns. The monkey's head is not at all distinct, and this is true of the representations of the animal in all the specimens of this class. It is 33¾ inches (85.8 cm.) wide at the top, 8 inches (20.3 cm.) wide at the base, and 3 inches (7.6 cm.) thick. From corral 17, Cerro Jaboncillo.

The next slab of the series is complete down to the line of tiny squares forming a band above the serrations, which are missing in our specimen. See restored outline drawing in No. 4, Plate IV, and in the photograph, No. 3, Plate LIII. The upper left-hand section was obtained by the first expedition, and was illustrated in No. 5, Plate XXXVIII of the first report. The rest of the slab, which was in three pieces, was excavated in corral 18, Cerro Jaboncillo. A terraced pattern quite similar to the one in the preceding specimen, excepting that the design at the top replaces the upper central terraced pattern, is found in this slab. It is Fig. 17 of the series which we have discussed previously. It contains three dots between the outspread arms, instead of one or two, as in the others. This slab is further characterized by the size of the legs, which are tiny compared with the enormous hips of the figure. The fragment is 19 inches (48.2 cm.) high, 17½ inches (45.5 cm.) wide at the top, 13 inches (33 cm.) wide at the base, and 2 inches (5.1 cm.) thick.

The broken slab shown in No. 4, Plate LIII, is carved from a coarse limestone, and comes from the vicinity of La Roma. The upper right-hand corner, and the entire base below the figure, are missing. The enframing design above the figure contains a series of terraced designs similar to others of the nude female groups. The two monkeys are considerably disintegrated. The only feature worthy of mention is the treatment of the eyes, which are definitely indicated by squares. It is 20 inches (50.8 cm.) high, 18 inches (45.7 cm.) wide across the central part, and 2 inches (5.1 cm.) thick.

No. 3, Plate LV, is a fragment of a large, massive slab containing only the lower part of the body, a portion of the right elbow, and the monkey, which is at the same side. This is a fragment of what was the largest specimen of any of the first three groups which we have just described. Unlike the monkeys in the other specimens of this class, which are represented in an upright position, this is on its back with the tail curved upward in front of the body, with an outward curl, and the end grasped by the feet. It was found in Cerro Jaboncillo, and if restored in a line across the feet would be 20½ inches (52.1 cm.) wide. It is 3 inches (7.6 cm.) thick.

The last and most elaborate of the bas-reliefs of this type was obtained by the first expedition, and will be found described in the first report, and in No. 2 of Plate XXXV is illustrated. During our excavations, we obtained in one of the corrales on the top of Cerro Jaboncillo a small fragment completing the monkey-figure; and in No. 5, Plate IV, an outline drawing with this additional fragment will be found. In the first report, we stated that it was impossible to ascertain with certainty whether it was a standing or a seated figure; but it is now seen that the figure is seated, as indicated by the presence of the upper part of the bent right knee.

The fragment which we have referred to as being in the Berlin Museum is much weather-worn, and is from the upper right-hand corner, showing the enframing design with a motif similar to that found in Fig. 12 of our series. Below this is a portion of an upraised hand, and, lower down, a monkey, showing without question that this broken slab belongs to the group which we have just described. This fragment is 22 inches (56 cm.) high at the top, and 2¾ inches (7 cm.) thick. We

are indebted to Professor Eduard Seler, the Director of the American Section of the Berlin Museum, for his kindness in sending us a photograph of this piece, which, unfortunately, is too indistinct to be reproduced.

Passing to the next group of the sitting female figures, we will consider the example which was described in the first report, and published in No. 1, Plate XXXVI. We will not repeat our description, but simply call attention to it in connection with our study of the next example, Fig. 17. It was found in Cerro Jaboncillo, and is a fragment of a small, thick slab. The upper and lower parts are missing. The figure itself is of the same type as the first class, represented without any accompanying sculpture opposite the knees and elbows; but the exceedingly important feature of this slab is the carving under the figure itself. That it represents a seat, there can be no question, as may be seen by the illustration; and this explains the band found under the right thigh of the slab published in the first report, to which we have called attention. This apparently represents the upper arm of a seat. These two examples are exceedingly interesting in bringing out the relationship between the seats and the slabs, and showing the association of these female figures, which we assume are of a deity, with the seats themselves. This throws some light upon the ceremonial character of the seats. Fragments of this sort are most tantalizing, as they emphasize the great need of a larger series of bas-reliefs to unravel many puzzling problems in the archeology of Manabi. The fragment under consideration is $12\frac{1}{2}$ inches (31.8 cm.) high, $10\frac{1}{2}$ inches, averaged (26.7 cm.) wide, and $2\frac{3}{4}$ inches (7 cm.) thick.

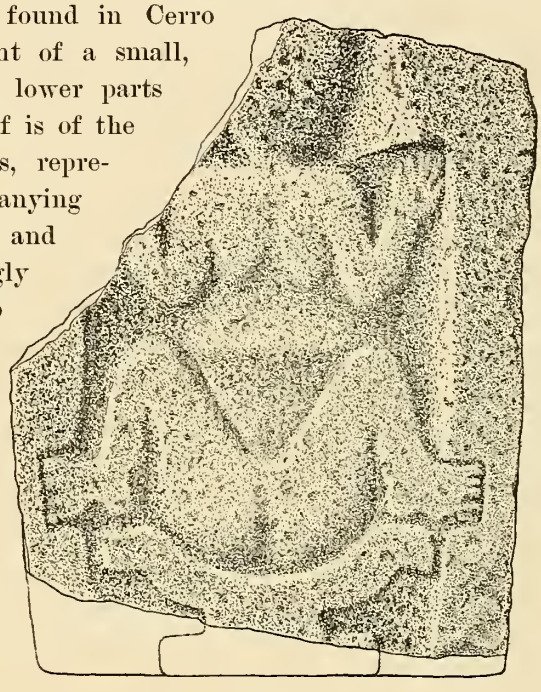


Fig. 17.

The fifth group is the standing figures represented by the bas-relief in the Trocadero Museum in Paris, which we published in Fig. 6, p. 62 of the first report, and the broken slab of our collection, also described in the same report,[75] and illustrated in No. 1, Plate XXXV. The Trocadero specimen we considered to be complete; but, from our present knowledge of the slabs, we know that the base is missing (see No. 2, Plate V). The slab which we illustrated (obtained by the Expedition), which is also the finest in workmanship of any of the whole series, we now show in a restored drawing, No. 1 of Plate V. We obtained three other fragments, which belong to this bas-relief, from our excavation of corral 46, Cerro Jaboncillo. There is not the slightest doubt that the lower piece, which is connected with the upper part by dotted lines in the restored drawing, is a part of this slab; and we have filled in hypothetically the connection between this piece and the upper part, based upon the sculpture of the Trocadero specimen. The details of the lower part of the body are of course problematically restored, and they are filled in simply to give some general idea of the slab as it probably appeared. From the presence of the loin-cloth and the absence of the breasts seen in the female figures, we are now inclined to consider that the figure is a male. This is rendered all the more certain when we take into account the considerable number of male figures wearing loin-cloths which the Expedition obtained from its excavations.

In the sixth group of the bas-reliefs we have two specimens. The first, which is illustrated in No. 6, Plate V, and in No. 1, Plate LVI, was found broken into a number of fragments in a corral in Cerro Jaboncillo. The carving is quite crude. A border with a design runs around the sides and along the upper edge of the slab. A plain surface follows; and a small female figure, cut in high relief, is enframed by this uncarved section. The head is covered with a band, and is clothed with a tunic-like garment held by zigzag straps over the shoulder. The arms and chest are bare, and the garment extends down to a line below the knees. Four diamond-shaped patterns with radiating lines show the patterns, closely imitating the technique of its textile prototype. The base is missing, and the fragment in question is probably not more than half of the original sculpture. It is 17 inches (43.2 cm.) high,

16¾ inches (42.6 cm.) wide at the top, 15¼ inches (18.7 cm.) wide at the base, and 2½ inches (6.3 cm.) thick.

The next specimen will be found in No. 5, Plate V, and No. 2 of Plate LVI. It is a nude, standing, female figure from Cerro Jupe. The base is broken off just below the feet, but the rest of the slab is in perfect condition. The general style of the sculpture is quite different from that of the slabs from Cerro Jaboncillo. The hemispherical frame above the head of the figure is the only one of this kind in our collection, and it is found in only one other bas-relief; namely, the slab in the Trocadero Museum. The section above the head contains the semicircular band with a serrated design, on each side of which is a disc. Above is a band, extending to the top of the slab, containing four squares. The two outer designs show a standing figure, apparently human, with a curious head; the upper part cloven, like the heads of owls found represented in other artifacts from Manabi. Each figure holds in the hand toward the centre a rod or stick, the upper end being forked. The two central designs are hourglass-shaped, and the same pattern is found repeated in each border, extending along the side of the slab below the enframing parts, and surmounted by a spiral. The figure itself is modelled in high relief, the different parts being well rounded. The face is a little more realistically represented than in most of the bas-reliefs. The ears are large, and the nose prominent; and the neck is small, and set considerably back from the chin. Across the shoulders the figure is exceedingly broad. The arms are extended downward along the sides, and no division is shown between the fore and upper arm. This is also true of the legs, the only divisions being very slight prominences for the knees. Tiny ear-bobs are the only decorations of the figure. The dimensions are as follows: Height, 23½ inches (59.7 cm.); width at top, 13¾ inches (34.9 cm.), at base, 11½ inches (29.2 cm.); thickness, 3 inches (7.6 cm.).

The seventh class, represented by a single fragment, is of a most interesting character. The upper right-hand section of the small bas-relief is composed of three pieces (see outline drawing, No. 7, Plate V, and photograph, No. 6 on Plate LV). The upper section was brought to us by natives, from Cerro Jaboncillo, during the expedition of 1907, and the lower corner below the break, which is indicated in the draw-

ing, was excavated in corral 18, Cerro Jaboncillo. The intervening section, including the small human figure and the lower part of the bird, was purchased during the summer of 1908, so that we have in this fortuitous manner brought together these fragments of the bas-relief. As will be observed, it is entirely different from any of the others, and it is much to be regretted that we have not the remaining fragments. There is no upper enframing section. The figure is broken off across the upper part of the body, so that it is impossible to determine whether it is a seated or a standing figure, or whether it is of a male or female. The right hand is upraised, in the same manner as in the majority of the female figures. The face is fairly well carved, and the head is surmounted with what appears to be an elaborate upward-expanding head-dress. Rising from the right shoulder is an enormous design decorated with small squares with vertical parallel lines along the inner side, ending in the upper corner in a scroll, and resembling somewhat a feather. A portion of the upper part of the slab is broken off, and the design is not complete. It appears to be connected with this, and to form a part of the head-dress. Across the breast of the figure is a design composed of parallel lines surmounted by a toothed design. The lower section of the fragment shows a broad band, which is probably the end of the upper sculptured surface. A miniature, standing, boy-like figure, entirely nude with the exception of a three-strand necklace around the neck, has the left arm bent; and the hand is hidden by, as if grasping, a high staff or standard which ends in the scroll above. Just above the head of the boy, the staff bears an hour-glass-shaped object, and between the outward angle and the edge of the slab is a crudely carved owl. The left arm of this small figure is apparently behind a slab-like device which bears three patterns, resembling a comb, separated from each other by lines. The remaining left foot shows an enormous heel, as is found in other slabs. The whole carving is in very low relief, and its great variation from the type of the other slabs reveals the fact that undoubtedly much interesting material has been lost during the centuries that have elapsed since the destruction of these ancient cities of Manabi in prehistoric times. It is 19 inches (48.2 cm.) high, more than 20 inches (50.8 cm.) wide, and 2 inches (5.1 cm.) thick.

Some of the fragments on Plates LIV and LV we are not able to include in any of the preceding groups; but several pieces are extremely interesting, and vary considerably from the others just described. The broken slab to which we shall now call attention, shown in No. 1, Plate LIV, and also given in drawing, No. 3, Plate V, is from Cerro Jaboncillo, and is the complete upper part of the bas-relief, comprising the enframing part (the head, shoulders, and hands), the entire lower part being missing. From the appearance of the figure it is probable that this is a sitting, nude, female figure belonging to either one of the first three groups. The details of the sculpture of the slab are quite different from those of any other bas-relief which we have obtained. The upper enframing band consists of two designs at the top, which appear to be double-headed lizards separated by an hour-glass-shaped design. The bodies of the lizards are diamond-shaped, and are covered with incised dots. Below, on each side of the head of the figure, is a diamond-shaped design with a serrated head, and a line of serrations running transversely across the centre. The head, which is angular in treatment, is deeply set into the slab, and is doubly enframed by a plain inner line. The nose is large, and tiny bobs are shown in the ears. The hands are raised, open, with palms outward, and are exceedingly well carved. The geometric treatment of the forms on the upper enframing band suggests the technique imposed by weaving. It is 12 inches (30.5 cm.) high, 16½ inches (41.9 cm.) wide at the top, 15½ inches (39.4 cm.) wide at the base, and 2¼ inches (5.8 cm.) thick.

Another fragment which belongs to the human-figure group, and of which we have only the upper part, is shown in No. 2, Plate LIII, and in the drawing, No. 4, Plate V, and was excavated in Mound 1. The entire lower section below the shoulders is missing. The enframing design is a series of terraced patterns combined with dots and a star-shaped pattern. Above the head is a portion of a design running the width of the inner edge of the enframing upper part, which resembles the legs and antennæ of a spider. Attention is called to the similarity between this carving and the representation of a spider found on one of the columns, and illustrated on Plate L. The head of the figure is nothing more than a disc, with the nose in the centre; and neither mouth, eyes, nor ears are represented. This simple treatment is found

in only one other specimen. There is the bare possibility that it was never finished. Near the hand there is a raised knob at the edge, which is possibly the upper part of a bag, bringing this into relationship with the group of standing figures with a bag hanging from each hand. So far as it is possible to determine, in the treatment of the group with the discs and monkeys, they are never carved so high on the slabs, consequently we can only assume that it is probably of the other type, and bring this into the standing-figure group. It is 18 inches (45.7 cm.) high, 17¾ inches (45.1 cm.) wide at the top, 15¾ inches (40 cm.) wide at the base, and 2¼ inches (5.8 cm.) thick.

Another fragment of an upper part of a slab, given in No. 2, Plate LIV, shows only the upper section broken off irregularly across the face. The enframing part consists of three diamond-shaped designs with serrated outer edge, enclosing a simple square placed in relationship to the outer figure. Below, on each side, is a terraced design. The head of the figure shows a hood-like covering, and rather indistinctly carved circular eyes. The carving is not in deep relief, and there is no possibility of placing this in any of the above-described groups. It is 11 inches (27.9 cm.) high, 16¼ inches (41.3 cm.) wide at the top, 15¾ inches (40 cm.) wide at the base, and 2 inches (5.1 cm.) thick.

In No. 3, Plate LIV, we have the upper right-hand section of a slab with a large enframing pattern composed of terraced designs and dots. The figure is angular; the hand is upraised; and the only thing to be distinguished about the face is the appearance of a square ornament on the ear. The whole surface of the carving is very much disintegrated.

In No. 4, Plate LIV, is a fragment of what was apparently a very interesting sculpture. It is the upper left-hand corner, showing the enframing design and half of the head. This is one of the most carefully carved of any of the slabs. There were, apparently, twelve patterns in two lines, in the upper part, running across the slab, which consisted (as seen in the section which we have) of six patterns; five designs representing a double terrace upon which are two upright bars ending in balls. This design should be compared with the series Figs. 10 to 16, and is represented in Fig. 10. The section below, on the side of the head, has a vertical inner band, saw-shaped, enclosing five dots.

The two patterns appear like the predominating design above, but are placed at right angles to it; and at the end of the slab are simple grooves, making a geometric pattern. The fragment of the face shows a head bared, and an oval-shaped eye slightly incised.

We have a few other fragments of bas-reliefs which call for no special attention. One piece, which is not illustrated, has the broad upper section surrounding the head entirely without carving. Another fragment, shown in No. 5, Plate LV, is of the lower left leg, with the ball-like heel of the foot close to the edge of a small section of the thigh of a seated nude figure: at least, judging from the other sculptures, we should be inclined to classify this fragment with the seated, nude female figures. Just below the knee, along the front of the leg, is a portion of a bent leg, and part of the thigh of an animal, which may be recognized as such by referring to the detailed drawing of the bas-relief of the group of female figures with monkeys: hence we assume that this is part of the body of a monkey. Restoring the width, it is found that it must have been $22\frac{1}{2}$ inches (57.1 cm.) wide at the top. It is half an inch (1.3 cm.) wider than the largest slab of the standing figure with bag in hand group.

Two fragments of what was evidently part of the same slab are shown in No. 4 of Plate LV, being the lower section of the nude, sitting female figure, the connecting part being missing. Below is a broad band with serrated designs.

No. 10, Plate LIV, is a human face, part of a bas-relief, noteworthy on account of the peculiarity of the nose, which is entirely flat. Another fragment in No. 7, Plate LIV, represents a monkey-like figure, which probably belongs to a slab of the group of seated figures with monkeys. There is a point of difference, however, in this fragment, which may be noted in one or two of the others; namely, in the large ear, which is not that of a monkey. It will be seen that, in the undoubted monkey-figures of the group, there is back of the head a carved band, quite peculiar, which cannot be explained, but which probably represents an ear

A slight variation of the bag is found below the hands of the figure in the fifth group, seen in No. 6, Plate LIV. It is, unfortunately, much broken, and it is possible a bag was not meant to be represented.

No. 5 of the same plate, which is the upper right-hand section of a slab, shows a double line of terraced patterns running parallel with the length of the slab, and a rather prominent head-band. The upper part of the hand is clinched, and has a band, made by two incised lines, around the wrist.

No. 9 is simply an upper corner of a very thick slab, and the outer design is given in Fig. 11 of the series of patterns of this type.

The most interesting variation, and one which is unique, of the bands found below the central sculpture of the slabs, just above the plain surface, is illustrated in No. 8, Plate LIV. It consists of two single patterns on the left, repeated, and another design on the right. They are, unfortunately, disintegrated, but the right-hand design appears to contain a puma-like face similar to those of the copper discs. The other two have a ladder-like figure running diagonally from one corner to the other, below which is a band ending in a coil, and above the ladder-like device is a trefoil pattern. There are two other fragments in the collection, which we have not illustrated; one being a plain piece of a slab with a serrated band, and the other the upper left-hand corner of a bas-relief with the plain outer enframing band.

The eighth group, comprising the conventionalized animal sculpture, was represented in the first report by two fairly complete examples, which were described in detail: hence this group requires but little to be said about it, other than to call attention to the new examples of the class which we obtained from our excavations. It will be seen by referring to one of these slabs, given on Plate XXXIX of the first report, that a large section was missing from the centre. This missing piece was found in our excavations in the corrals, and a restored drawing is given in No 1, Plate VI. The other bas-relief, which was illustrated on Plate XXXVIII of the first report, lacked a small section on the left side, and this was also discovered in the corrales. The drawing of this specimen is given in No. 4, Plate VI.

Two large fragments of slabs of this group were found in the corrales, and, although there are variations in the style of sculpture, yet they show that a well-defined type of conventionalized animal was intended to be represented, as in all essential details the treatment is identical. The example given in No. 1, Plate LVII, and in the drawing,

No. 2 of Plate VI, is characterized by the notched inner line of the diamond-shaped body of the animal. The entire base, including the thighs and hind feet, is missing. It is 21 inches (53.3 cm.) high, 17 inches (43.2 cm.) wide at the top, 15 inches (38.1 cm.) wide at the base, and 2½ inches (6.3 cm.) thick.

In the slab given in No. 3, Plate LVII, and the drawing, No. 3, Plate VI, is a fragment of the same part of a slab as in the preceding specimen. It is more elaborately worked out than any of the other bas-reliefs of this group. A unique feature is the band enclosing the animal, which is a series of grecques. The tentacles, which are a characteristic feature of this group, are represented with small plates on the under surface, as in the octopus. The slab is 19½ inches (49.5 cm.) high, 18½ inches (46 cm.) wide at the top, 17 inches (43.2 cm.) wide at the base, and 2½ inches (6.3 cm.) thick.

A study of the specimens given in the drawings, Nos. 1 to 4, Plate VI, shows that this series of feelers, or tentacles, connected with the head, will be found in series of four on each side. They are most realistically represented in No. 4; and in the others it will be noticed that they are more or less highly conventionalized, geometric patterns, sometimes grecques. This point can be readily seen in No. 1, where the stepped design on each side of the top of the head, just above the shoulders, takes the place of the first tentacles, followed by a grecque as the second; then the third is a band ending in a coil; and finally the two central tentacles, separated by a dot, are identical with those found in No. 4. In No. 2 this same treatment can be followed out, where the ball at the upper part of the head, close to the shoulders, is the first tentacle, followed by the terraced pattern of the second, except for the absence of the terraced pattern; while the fourth tentacle is like those in Nos. 1 and 4, but they have a terraced design on the central side. In No. 3 the tentacles may be seen quite readily, and attention has already been called to the feature of the plates on four of them. The central tentacles are conventionalized grecques. In all the examples it will be seen that the treatment of the head is similar, and in No. 5 we have a fragment of simply the head of the animal of this group of bas-reliefs. All of the heads, except No. 4 of Plate VI, have a notched or incised band at the base of the head, seemingly representing teeth.

In No. 4, where the whole treatment of the slab is less angular, this is missing.

The last example of this group, illustrated in No. 2, Plate LVII, and shown in the outline drawing No. 6, Plate 6, is a fragment of the lower part of a slab of this group, containing only the right thigh and ribbon-like foot, and a curled tail, below which is a band with the serrated design found in a number of the bas-reliefs of the groups above described. Below this band is the plain uncarved base, showing that slabs of this group had this feature of the serrated band, and the plain uncarved base to be set into the ground.

We cannot say more about the signification of this sea-monster than to surmise that it is a highly conventionalized representation of some marine animal, or, as we called it in our first report, "a composite creature which might better be described as a mythical monster." There cannot be any doubt that this animal was worshipped in connection with the sea; but, in the absence of documentary evidence, we are unable to make any more positive statement.

The final group of bas-reliefs, the ninth, is the series which represents a disc above a crescent. In No. 6, Plate XXXVII of the first report, we published a fragment obtained during the first expedition, but were unable to conjecture regarding the composition of the rest of the sculpture. In 1907 we secured from our excavations in corral 41 another small section of the upper part of this slab; and in No. 4, Plate VII, a restored drawing will be found. The enframing band consists of terraced geometric patterns and small discs, below which is a somewhat elliptical disc above a crescent. On each side of the disc is a vertical line. In the lower part of the slab, as will be seen in the drawing, is a fragment of carving at the right side, which may represent the upper part of the head of a bird. This fragmentary bas-relief is 14½ inches (36.8 cm.) high, 17½ inches (44.5 cm.) wide at the top, and 2¼ inches (5.8 cm.) thick.

The most complete and interesting of this series will be found in No. 3, Plate LVIII; and in No. 3, Plate VII, a restored drawing is given. From this fragment we are enabled to make a fairly complete restoration of the bas-relief. The upper enframing band consists of rudely carved terraced patterns and small discs. The upper disc of

the central design is a vertical ellipse, and the crescent is slightly concave at the top. Opposite, on each side, is a bird; below is a plain band with the serrated design, and followed by the uncarved surface, which occupies approximately little less than half the height of the entire slab. As seen in the photograph on Plate LVIII, a considerable portion of the upper right-hand part of the bas-relief is missing, and the two faint incised lines seen along the edge, as shown in the drawing, are the result of cutting, apparently with a stone tool, in ancient times, as the edge is weathered in the same degree as the rest of the sculpture. This was for the purpose of breaking off this section, and, as it is the same size as the average metates, it was probably broken off for this purpose. This is in keeping with our theory, that these sites of ancient culture were abandoned at the time of the Spanish Conquest, and the immediate vicinity occupied by another people, who were responsible, to a large extent, for the destruction of the bas-reliefs. This bas-relief is 34½ inches (87.6 cm.) high, approximately 19 inches (48.2 cm.) wide at the top, 16 inches (40.6 cm.) wide at the base, and 2 inches (5.1 cm.) thick.

The drawing in No. 1, Plate VII, is of a small slab observed in private hands in the town of Picoaza, the only carved fragment which we did not succeed in obtaining. The upper enframing part of the slab is entirely plain. The crescent has on each upper corner an overhang somewhat resembling the upper part of a seat. There is an incised line across the crescent; and below, at the base on each side, is a tiny disc. Below is a band with the serrations.

The most pronounced type of the disc and crescent will be noted in the drawing No. 2, Plate VII, and in No. 2, Plate LVIII. The fragment contains an almost perfect disc and crescent. The entire upper section is uncarved, without any enframing section. Below are traces of bands, but the base is missing. It is 25 inches (63.5 cm.) high, 11 inches (27.9 cm.) wide at the top, 10 inches (25.4 cm.) wide at the base, and 2¼ inches (5.8 cm.) thick. The somewhat disintegrated small fragment in No. 6, Plate VII, shows also a fairly perfect crescent, above which is a disc. The upper part of the slab in No. 5, Plate VII, and No. 1, Plate LVIII, is, perhaps, the most interesting of all, showing the possibility of a variation of the disc to the patterns found in

the enframing sections on any of the slabs which we have illustrated in the series Figs. 10 to 16. The disc is an almost perfect sphere, and the design below is an exact representation of the upper part of some of the seats, with an overhang to the arms. Unfortunately, as will be seen by the drawing, the lower part is missing, so that we are unable to determine whether there was a support — either terraced or of an animal or human figure — to this design, or whether it was a geometric treatment of the crescent. The upper edge of this slab is curved. It is 13 inches (33 cm.) high, 13½ inches (34.3 cm.) wide at the top, and 2 inches (5.1 cm.) thick.

Another fragment of a slab which probably belongs to this group is drawn in No. 7, Plate VII. A photograph was given in the first report, No. 3 of Plate XXXVII. It is a section of a thick bas-relief, being the part above the plain, uncarved base. Above the serrated band is a triangular design with an incised dot in the centre. On each side is a bird facing the centre. Just above, where it is broken off from the rest of the slab, the break is somewhat circular, as if along the line of the under side of a crescent. In the group of standing human figures with birds, the feet are opposite the legs and breasts of the birds. Bearing in mind the bas-relief of this disc and crescent group, with the birds just above the serrated line, we believe there can be no doubt that this fragment belongs to this group. It is only 8 inches (20.3 cm.) high, 13 inches (33 cm.) wide, and is quite massive, being 2¾ inches (7 cm.) thick.

Regarding the significance of this disc combined with a crescent, we may observe, that, according to Velasco, the Caras adored the sun as their principal deity, and also the moon and stars. According to the same authority, they had temples in Quito devoted to these two heavenly bodies. The Nahuans had two great pyramids at Teotihuacan, in the valley of Mexico, which were dedicated to the sun and the moon, and still bear these names. It is highly probable that the emblems on this group of bas-reliefs represent the sun and moon, and are vestiges of their worship by the ancient people of Manabi.

This concludes our description of this interesting and unique group of sculptures from Manabi. There is little probability that more light will be thrown on the problems connected with these bas-reliefs,

or that we shall be able to enlarge, to any extent, the groups which we have enumerated in this monograph. We can only hope to add to our knowledge of this important type of sculptures by a long series of excavations, which should be carried on in the different hills of the central part of the province. It is possible that expeditions to this part of Ecuador, properly outfitted, and prepared to remain in the field for an indefinite period, would yield important results, and give us the material needed for study in this, up to the present time, neglected field of archeological investigation. The plan and scope of our work in South America do not permit our Expedition to dwell longer in this fascinating region, and we earnestly hope that the result of our rapid and incomplete survey of this field will stimulate further research.

LIZARD-LIKE FIGURES. We illustrate, in drawings on Plate LIX, three broken sculptures having lizard-like figures. In a study of these animals they should be compared with the fragment of a stone seat having a somewhat similar figure carved upon it, which we published in No. 6, Plate XIV of the first report, and they should also be studied with reference to Plate VI of the present monograph, which contains outline drawings of the conventionalized animals of the bas-reliefs.

Nos. 1 and 2 of Plate LIX are apparently fragments from a single sculpture; and from their general appearance it seems possible that they were part of a pedestal which once supported, either a column, or possibly a seat. This is, however, merely conjectural, as the fragments lack the central part, which probably connected them. As will be seen in the drawings, they have been mutilated, the raised portion at the inner edge of each piece having been cut down with some sharp instrument. The ends of the head of each animal have also been cut in the same manner; furthermore, these pieces are considerably disintegrated. These lizard-like figures have the diamond-shaped body of the animal represented in the bas-reliefs, which is also the shape of the animal in the fragment of seat to which we have referred, published in the first report. It is highly probable that the same animal is represented in these fragments and in the bas-reliefs. They are quite similar in treatment to each other, with the exception that No. 2 has

two tentacles, or short legs, at the apex of each side of the diamond-shaped body, and the tails are coiled in a different manner in each specimen. They are quite different, so far as the character of the sculptures is concerned, from any other fragments which we secured in Manabi. They were excavated in corral 29, and a diligent search did not result in finding any other pieces of these sculptures. Fragment No. 1 has an extreme width of 11 inches (27.9 cm.), is 10¾ inches (27.4 cm.) high, and 3 inches (7.6 cm.) thick. No. 2 is 7½ inches (19.1 cm.) wide, 10¾ inches (27.4 cm.) high, and 3 inches (7.6 cm.) thick. We do not hesitate to add these lizard-like figures to the group of conventionalized animals of the bas-reliefs.

The small section of sculpture shown in No. 3, Plate LIX, also represents a lizard-like figure somewhat similar in appearance to the two specimens just described, the only exception being, that the fore legs are much longer than those of the two other specimens, and they are not projected forward, but extend backward toward the body. This piece is part of a column, and it was probably the section of a column on the back of an animal of the group of animal figures which we described and illustrated on Plate XLVII. The fragment is only 5 inches (12.3 cm.) long. This concludes our description of stone sculptures representing life-forms from the hill region.

MISCELLANEOUS STONES. In our excavations of the corrales of Cerro Jaboncillo, we found a considerable number of stones of semi-lunar form, of which we give two examples, Nos. 1 and 2, Plate LX. In length and thickness they are about the average size of the metates found in the corrales. Some of them are very smooth and have flat surfaces, while others are roughly shaped, and several have somewhat convexed surfaces with rounded edges. The majority, however, have perfectly flat, smooth edges.

No. 1 is of the type with rounded edges. It is 15 inches (38.1 cm.) long, 7¾ inches (19.8 cm.) high, with an extreme thickness of 1½ inches (3.8 cm.). No. 2, from Mound 3, is 17½ inches (44.5 cm.) long, 8½ inches (21.7 cm.) high, and 1½ inches (3.8 cm.) in thickness. This specimen has the flattened edge. The largest specimen in the collection is nearly 20 inches (50.8 cm.) long, 11 inches (27.9 cm.) high, and 2

inches (5.1 cm.) in thickness. The use of these specimens of this group is problematic, and we confess to being unable to solve the problem. There is a probability that they were set into the ground as a support for a low bench, table, or seat; and, again, there is a possibility that they were representations of the moon, and might be classed with the crescents represented on the bas-reliefs in connection with the discs. This, however, is a far-fetched deduction. As we have stated, stones of this character are of frequent occurrence in connection with the sculptures of the other groups found in the corrales, and, as we have just mentioned, they are found in the burial-mounds: hence it is probable that they served some purpose in connection with the mythological ideas of the ancient peoples.

The two objects shown in Nos. 3 and 4 of Plate LX are selected from a number which were also excavated in the corrales. They, too, may have been set into the ground as supports for a bench or seat, as they have the same general shape as the bases of the bas-reliefs, except that they are very small, have no carving, and have a considerably concaved top. No. 3 has an extreme height of $15\frac{1}{2}$ inches (39.4 cm.), is $6\frac{1}{2}$ inches (16.5 cm.) broad at the base, $11\frac{1}{2}$ inches (29.2 cm.) broad at the top, and 2 inches (5.1 cm.) thick. No. 4 has an extreme height of $13\frac{3}{4}$ inches (34.9 cm.), is $4\frac{1}{2}$ inches (11.5 cm.) broad at the base, 9 inches (22.9 cm.) broad at the top, and 2 inches (5.1 cm.) thick.

We would call attention here to the circumstance that possibly the sculptures were arranged in connection with Nos. 1 and 2 shown on the same plate which we have just described, as the circular part of these sculptures sets in perfectly, in some cases, to the upper part of the sculptures under consideration. We leave these two groups as presenting problems yet unsolved.

The last specimen on Plate LX, No. 5, is a small, rough circular stone with an extreme diameter of $12\frac{1}{2}$ inches (31.8 cm.), and a thickness of $1\frac{3}{4}$ inches (4.5 cm.). This may have been the cover for a small tomb, as it is roughly worked, and resembles, although it is considerably smaller, the stone covers for tombs which we found in the La Roma district. We have in our collection a large circular stone, 27 inches (68.5 cm.) in diameter, which was the cover of one of the tombs in La Roma. It is like the specimen just described, but much larger.

METATES, MORTARS, AND PESTLES. In our exploration of the corrales of Cerro Jaboncillo, many metates or mealing-stones were found. They were especially numerous in the corrales on the summit of the hill, and were often found in deposits. In one corral, more than thirty were discovered close together, indicating that there had been a gathering-up of mealing-stones, and that subsequently they had been buried in the corral. We called attention, in the preliminary report, to the fact that the people of Manabi to-day obtain their stone hand-mills from the ancient habitation-sites on the hills. The three examples which we illustrated on Plate XLI of the preliminary report are specimens which have been considerably used, and two were worn somewhat thin. Many of the metates discovered in our excavations are quite thick, and bear no indications of having been used. An example of this class is figured in No. 1 of Plate LXI of the present monograph. It is 14½ inches (36.8 cm.) long, 8¼ inches (21 cm.) wide, and 2½ inches (6.3 cm.) thick. We collected but few of these metates, and the greater number of those found we distributed among our workmen, who were eager to obtain them. A large slab, possibly a metate, was found near corral 8. It is not illustrated. It was found broken into many pieces, and is quite thin, only one surface showing any indications of smoothing by use, and that only slightly. There is a possibility that it was used as a table or altar, resting on columns. This specimen is the largest one of the kind which we have ever seen in Manabi, being 26 inches (66 cm.) long, 15¼ inches (38.7 cm.) wide, and only 1 inch (2.5 cm.) in thickness.

Dorsey illustrates a broken metate obtained by him on the Island of La Plata. He states that the fragment was 5 inches (13.3 cm.) wide, and was originally 12 inches (30.5 cm.) long. The photograph published by him shows the under part of the stone, with two circular feet an inch (2.5 cm.) in length. It is impossible to determine whether the metate had three or four feet.[76] All of the metates which we have seen or collected from the west coast of South America are, as we stated in the first volume, plain slabs without feet, and it is barely possible that this fragmentary stone object was a low stone *duho* or seat.

Many rough mullers, or hand-stones for the metates, were found in these excavations, one, of rough form, being illustrated in No. 2, Plate

LXI. These rough hand-stones show no signs of wear, and, as in the case of the metates which had not been used, we believe that they were cached for future need, as was often done in many parts of the United States, where we have found large caches of discs, which were unquestionably deposited as a store for service later. The hand-stone shown in No. 3 of the same plate is more massive than the stone of almost corresponding shape which we published on Plate XL of the preliminary report. It is of a different stone from any of the mullers, and shows a considerable use in the wearing-down on one side, as may be seen in the drawing.

A new class of objects found by the second expedition is shown in the pestles, Nos. 4 and 5 of Plate LXI. No. 4 is a rather unusual vessel, being very short, and has a rude head projecting from the upper part, at one side. It is only $3\frac{3}{4}$ inches (9.6 cm.) high, and the head makes a convenient handle for manipulating the pestle in a mortar. Here again, however, there is on the lower part but little indication of any continued use, and from the shape of the pestle we are inclined to believe that it is the end of a much used muller which was broken, and that this end has been worked down to the form which it now has. This is rendered more probable by the fact that, on the face and on one side of the pestle, the surface is worn smooth, the peck-marks being almost obliterated.

One of the most interesting specimens of stone-work secured in Manabi is the large pestle shown in No. 5. It is the only implement of this sort which we have ever seen from South America, nor do we recall having seen any of these objects from any part of Mexico or Central America. Years ago we found, in excavations among the mounds of Ohio, a pestle almost identical in shape with this one, and the same form is also met with on the Pacific coast of the United States. This specimen is of felsitic stone, and is from Cerro de Hojas. It is 8 inches (20.3 cm.) long, with a diameter of $2\frac{3}{4}$ inches (6.9 cm.) at the base. The sides are very smooth, but the base is slightly rough, which would give it a good grinding-surface. It seems strange, indeed, to find in the hills of Manabi a pestle of this shape, and, among all the stone implements which we have secured from the province of Esmeraldas and the interior of Ecuador, this specimen is in a class by itself.

Pestles with a sculptured head forming the handle are exceedingly

rare in South America, although they are comparatively common in some parts of the West Indies We have collected small pestles in Mexico somewhat resembling the specimen shown in No. 4, Plate LXI, which was taken from Manabi.

In our excavations in Mound 3, we found several concretionary pebbles of sandstone, one of which is illustrated in No. 6 of Plate LXI. The upper surface is seen to be hollowed, apparently by nature, so far as we are able to determine from the considerably weather-worn surface of the stone at present. The stone illustrated is undoubtedly a mortar. It has an extreme length of 8 inches (20.3 cm.), and is about 4 inches (10.2 cm.) high.

The small stone mortar or cup shown in No. 7, Plate LXI, is from our excavations in Mound 3, Cerro Jaboncillo. There is an attempt at decoration in the slight grooves running up and down the sides and in the constriction just below the rim. The surface is smooth; but the inner part, as well as the under part of the base, has a rough, pecked surface. This specimen is only $3\frac{1}{2}$ inches (8.9 cm.) in diameter, and $2\frac{1}{4}$ inches (5.8 cm.) high: consequently it is manifest that it was used for mixing pigments. The pestle may have been either a wooden one or a small stone. We have fragments of small limestone cylinders slightly over 1 inch (2.5 cm.) in diameter, which may have served as pestles for small mortars of this character. This was the only stone vessel which we obtained from our excavations, or, indeed, in any part of Manabi; but we describe, in the section devoted to the antiquities from the vicinity of Caraques, a remarkable vessel of puma-shape which is in the Santos Collection.

AXES. Stone implements and weapons are exceedingly rare in the province. We were unable to obtain any axes on the first expedition, with the exception of one of copper. We succeeded on the second expedition in obtaining representative examples of large stone axes of a type peculiar to the Ecuadorian coast, although the same form is found in much smaller examples throughout nearly the whole of South America. We also secured six small, polished stone axes, commonly called "celts." Most of these specimens are from our excavations in the hills. Before describing these axes, we call attention to the fact

that Dorsey, in his excavations on the Island of La Plata, found in one of the graves a remarkable stone axe, in fact, as he writes, "one of the most remarkable stone axes ever found."[77] This axe is of enormous size, being 19½ inches (49.5 cm.) long, 12½ inches (31.8 cm.) broad, and in no part more than ¾ of an inch (2 cm.) in thickness. It is highly polished, and in all likelihood was only used ceremonially, although it is more probable that it served as a gong, as, when struck, it gives a clear, resonant sound, not unlike that of a bell. This remarkable axe found by Dorsey resembles in shape our specimen from the vicinity of Caraques, No. 3, Plate LXII. The axe we show is, however, very much smaller, being only 10½ inches (26.7 cm.) high. We shall return to this specimen later.

The large, axe-shaped object illustrated in No. 1, Plate LXII, and of which a view of the side is shown in No. 2, is almost as large as the Dorsey specimen from La Plata, being 16½ inches (41.9 cm.) high, 7½ inches (19.1 cm.) across the widest part, and ½ inch (1.3 cm.) at the thickest part, and, as it is broken, it was originally a little longer. This specimen is of limestone, and was found in an excavation in corral 43, accompanied with the bones of a mountain-lion. The upper part is missing. A portion of the lower edge has been broken off, as if by use, and, as the section shows, is not straight, but has a curved surface. As this stone has a clear, resonant sound when struck, it is highly probable that it was a gong, as its large size renders it entirely unsuitable for use as a weapon or implement.

Of very great interest is the stone axe, to which we have already referred, from the vicinity of Caraques, figured in Nos. 3 and 4 by a front and side view of the specimen. It is 10½ inches (26.7 cm.) high, and has an extreme width at the top of 7 inches (17.8 cm.). We have other specimens of axes of the same shape from Esmeraldas, respectively 9, 9¼, and 9½ inches (22.9, 23.6, and 24.2 cm.) long. The Caraques specimen is made of andesite, and, we believe, shows conclusively that the axes of this shape and size were undoubtedly used as gongs, as the edges on each side of the axe, below what would ordinarily be the hafting-end, and the point where the blade begins, are broken in many places, as if from repeated blows. We have experimented with these axes, and find that the clearest and most sonorous sound is pro-

duced near the edges. We must state, however, that the upper hafting-end is sharp, like smaller specimens of this shape which were used as axes, the end being inserted into a slit or groove of a wooden handle, and lashed into the same around the two projecting arms or ends of the axes. Taking into consideration the size and weight of these specimens, and bearing in mind the enormous size of the one which we have described, and the Dorsey specimen from La Plata, we may reasonably conclude that these objects were probably used as gongs. In this connection we recall the resonant stone described by Suarez, and mentioned on pp. 67, 68 of the preliminary report. This stone we said had disappeared, and we thought that it might be in one of the houses of Picoaza, used as a metate. Señor Segovia informed us later, that it had been sent to Spain, in 1892, for the Columbian Historical Exposition, Madrid, and apparently it was never returned to Manabi. We find in the "Report upon the Collections exhibited at the Columbian Historical Exposition," by Daniel G. Brinton, a notice of this stone; and he writes that it is "a long stone with resonant qualities, used as a bell, or to sound warnings, emitting a loud and sonorous report upon being struck."[78] Don Celso Velasquez told us that two other stones of this class had been found in Cerro Jaboncillo, but we were unable either to secure them or to see them.

The broken specimen, No. 5, Plate LXXII, is an axe of the same class, but a little smaller than any which we have mentioned, being but 8½ inches (21.7 cm.) high. This specimen, also, has the edges broken, and, as will be seen, the upper projecting arms, for suspension or lashing, have been broken off. It is of the same stone as the Caraques specimen, and was found near Manta. The Esmeraldas axes of the same shape are of this stone, but are not so sonorous in tone when struck. Among the hundreds of axes from the interior, we have not seen any large ones like those which we have just described, and, so far as we know at present, they seem to be a coast type.

The small celts or polished stone axes shown in Nos. 6 to 10, Plate LXII, call for no special description, as they are such as might be found in almost any part of the New World. They are of a small type, ranging in size from 1¾ to 3½ inches (4.4 to 8.9 cm.). Several show signs of having been used as wedges, as the upper ends are bat-

tered. The edges are in most cases sharp, having been freshly ground before they were lost, or buried in the corrales.

HAMMERS AND POLISHING-STONES. We illustrated in the preliminary report, No. 7, Plate XL, a typical hammer-stone; and on Plate LXIII, Nos. 9 and 10, are two other hammer-stones selected from a large number which we found in our excavations. No. 9 is more regular than the one which we first published, being almost a ball,—2½ inches (6.3 cm.) in diameter,—and made of chert. The specimen given in No. 10 is a piece of chalcedony, one end showing the typical abrasion found on hammer-stones. The surface of this stone is highly polished, and it is evidently a pebble which the ancient people had just begun to use as a hammer. The other stone, No. 9, and the greater number of hammer-stones generally from Manabi, are roughly-shaped masses approximately of the size of a baseball, and without much sign of long-continued use. No. 11 is a pebble, and has abrasions at each end.

A number of stones used for smoothing pottery were found in the excavations, and in No. 12 we show one of chalcedony.

Another type of polishing or smoothing stone is shown in No. 2 of the same plate, being a thin piece of stone with a somewhat sharp edge. It was no doubt used for shaping the sides of pottery vessels, while the other specimens were used for smoothing.

WEIGHTS. We now come to another class of stone objects shown in Nos. 3 to 8 of Plate LXXIII, all the specimens being found in our excavations. These stones are perforated biconically, and are of divers shapes. The largest, No. 4, is 7 inches (17.8 cm.), and the smallest 2 inches (5.1 cm.), in height. No. 6 has also, at the top, a groove. As all these stones are from the hills, and we saw none near the ocean, there seems no reason to doubt that they were loom-weights, and not net-sinkers, as the net-sinkers we have from Esmeraldas are all small, notched pebbles. A small disc of coquina-stone is illustrated in No. 1. The perforation appears to be natural, and, if this stone is a weight, advantage was taken of this fact. Its small size and light weight would render it of service for only very small looms. From the

finding of thousands of spindle-whorls in the hills, we know that the people must have been industrious weavers.

KNIVES AND SCRAPERS. Large quantities of rough material, for the making of knives and scrapers, were found in the excavation of the mounds and corrales. The material is chert, chalcedony, and obsidian, and a small series is shown on Plate LXXIV. Nos. 1 to 5 are large masses which have been roughly shaped. No. 1 resembles a phase in the process of manufacturing a knife, commonly found in the ancient Indian quarry workshops of the United States. Nos. 2 to 5 are flakes struck off from a block, having one end brought to an edge by chipping on both sides, making very good cutting-tools, and of about the right size to hold in the hand. They are of chalcedony. Nos. 6 to 9 are ordinary flake-knives of obsidian, with broken edges showing use. We found a considerable number of these obsidian knives in the excavations, and they average about 2½ inches (6.3 cm.) in length. Nos. 10 to 12 are nodules of obsidian found in a cache on the western side of Mound 2. They average from 2 to 3 inches (5.1 to 7.6 cm.) in diameter. This rough material was used to flake off the knives which we have just mentioned. We shall refer again to the use of obsidian in describing obsidian mirrors.

OBSIDIAN MIRRORS. One of the most interesting specimens from our excavations in Cerro Jaboncillo is an obsidian disc, illustrated in Nos. 1 and 2 of Plate LXV, which we found in the general digging near the southern end of Mound 2, quite apart from any skeleton (see plan of mound on p. 37). This class of objects is very rare in South America. In fact, we know of no other examples from the coast of Ecuador, with the exception of three very small specimens from La Tolita, and one of larger size from La Piedra, near the city of Esmeraldas. The large disc under consideration, from Manabi, is nearly circular, and averages slightly over 7 inches (17.8 cm.) in diameter. It has an extreme thickness of 1 inch (2.5 cm.) at the centre. The face of the object, which is undoubtedly a mirror, is highly polished, with the surface like glass, and is slightly convexed (see No. 1 of Plate LXV). The under side presents a rounded, convexed surface, the greater

part being smoothed and polished, without the glassy finish of the other side. This side is illustrated in No. 2, Plate LXV. Near the edges, the surface is smooth, but not polished. The stone itself is a banded, jet-black obsidian, and, except near the edge, it is almost absolutely opaque, rendered so, doubtless, by its convexity and the dull finish of the back. Near the thin edges it is translucent, and has a biconical perforation for suspension, which is ½ inch (1.3 cm.) from the edge, and only $\frac{1}{12}$ of an inch (.2 cm.) in diameter at the centre.

According to Ulloa, who was in Quito about the middle of the eighteenth century, obsidian mirrors were extensively used by the Caras in that region. He describes and figures a mirror from a Guaca near Quito, which is of the same type as our specimen. He distinguishes between two kinds of material of which mirrors were made in this region; namely, *Piedra gallinazo* and *Piedra inga*. *Piedra gallinazo*, or vulture-stone, is undoubtedly obsidian. He says that it has a black color, like that of the vulture (hence its name), and is very hard and glassy, like flint. *Piedra inga*, or inca-stone, is soft, not transparent, and of a lead-color. Among mirrors which he states he saw, many were flat, some concave, while others were convex. They have one side even and smooth, like a mirror of crystal, the other side oval-shaped or a little spherical, and not so well polished. In size they were generally from 3 to 4 inches (7.6 to 10.2 cm.) in diameter, although he states he saw one nearly 1½ feet (45.7 cm.) in diameter. He figures one specimen of obsidian in his work, with the following caption: "Concave mirror, made of gallinazo-stone, called, in the Indian tongue, *Inga-rirpo*." It has a perforation for suspension. Two other specimens of the softer stone are figured with these captions: "F, *Inga-rirpo*, or mirror of inca-stone, showing its plane surface; G, *Inga-rirpo*, to demonstrate its convex surface." These specimens are also perforated for suspension. Our specimen corresponds in every way with the piece figured by Ulloa, except as to the average size, being twice as large as those which he mentions.[79]

More closely resembling in size the mirrors mentioned by Ulloa, is an example which we have from La Piedra, a small settlement on the right bank of the Esmeraldas River, at its mouth. As we have already stated, Ulloa says that the specimens from the Quito region

were generally from 3 to 4 inches (7.6 to 10.2 cm.) in diameter. The obsidian disc under consideration, from La Piedra, is $3\frac{1}{4}$ inches (8.2 cm.) in diameter; but its relative thickness, in proportion to its diameter, is far greater than that of the Jaboncillo specimen, being $1\frac{1}{8}$ inches (2.8 cm.) in thickness. The surface is very slightly convexed, and, although very smooth, it bears no polish, but is in finish the reverse of the Jaboncillo specimen There are numberless very fine scratches on the surface, which, however, may be recent markings. The elliptical reverse shows the natural surface of the pebble with the flake-marks, and a considerable portion is entirely unworked. Unlike both Quito and Manabi specimens, there is no perforation for suspension. The other examples of obsidian discs from the province of Esmeraldas are quite small, and two of them, at least, do not come under the category of mirrors. They will be described in the volume relating to the archeology of Esmeraldas. The third specimen, which is from La Tolita, is broken, but it was about 2 inches (5.1 cm.) in diameter, and the surface is smoothed, and only slightly more polished than the La Piedra disc. It is possible that it had a perforation in the section that is missing.

We may call attention here to the fact that circular obsidian mirrors are found in Mexico, principally in the centre of Nahuan culture. We have seen several of approximately the same size as the Jaboncillo specimen, but do not recall at present where they were seen. Leopold Batres has figured a circular mirror from Texcoco, a relic of the Acolhuas.[80] The size is not given, but, if we remember rightly, the specimen is now in the National Museum, and is considerably larger than the one which we have described from Manabi. The perforation is in a slight semicircular expansion on the edge. We have also seen an enormous circular slab of obsidian, several feet in diameter, in the city of Oaxaca.

The discovery of this mirror in Cerro Jaboncillo, and its identity with the objects of this class from the region of the Caras near Quito, is a point of some significance in our studies, as it appears to be evidence of Cara workmanship, and Cara occupation of the hills, in line with their traditions of having lived here before, migrating up the coast to Esmeraldas, and leaving the lowlands to invade the mountain territory in the present province of Pichincha.

A possible use of a very small obsidian disc from La Tolita is suggested by a reference in Benzoni's "History of the New World," where, in speaking of the Quancaviliqui or Guancavilca tribe at Colonche, near Santa Elena, he describes the dress and ornaments of the chief. He writes that the chief wore on his left wrist a certain shining stone like a mirror, said to be a preserver of the sight.[81] This shining stone was probably obsidian, and the La Tolita specimen might well have been used in the manner indicated in Benzoni's narrative. Wolf, as we have previously stated, found worked obsidian at Colonche.

The material under discussion, obsidian, is not found *in situ* along the coast, and we may quote here from a letter written by Wolf to Archbishop Suarez, published by him in the second volume of his "History of Ecuador." Wolf writes: "Among the antiquities of the coast, my attention was much called to the objects of obsidian from Antisana, whose unquestioned origin we knew immediately. These objects prove a commercial and industrial traffic between the Indians of the coast and those of the interior. (In the interior province of Quito, lances, arrows and other objects of the same material are frequently found.) The altar of the Church of Chongon, near Guayaquil, was made of a stone worked by the ancient Indians according to tradition, found near the town; the sacristan showed me this stone, and I knew immediately that it was the obsidian of Antisana in its most beautiful variety. I am saving for you a piece of worked obsidian which I found near the pueblo of Colonche [this town is along the coast between Santa Elena and Manglar Alto], together with various objects of pottery."[82] In our excavations in the mounds of Cerro Jaboncillo, we found nodules, numerous chips, as well as a great number of flake-knives of obsidian (see Plate LXIV). No doubt this material was extensively used in ancient times all along the coast, from near Guayaquil to La Tolita, and, if we take the very trustworthy authority of Wolf, it shows conclusively that there was a very considerable traffic between the region of Antisana in the interior Andean province of Pichincha, and the coast, during precolumbian times.

RECORD STONES. Among the many objects found with skeleton 18, in Mound 3, Cerro Jaboncillo, were four tiny chalcedony pebbles,

a small flat disc of greenstone, and three flat, worked stones of different shapes. The three stones which are cut from limestone attracted our attention from the fact that they reminded us of the curious stones found by Dorsey in the refuse-heaps on the Island of La Plata, Ecuador. He devotes a number of plates to these very curious squared and circular stones, which he discovered in great numbers. Dorsey was unable to come to any definite conclusion as to the use of these stones. We were constantly on the lookout for stones of like character, and, in view of their abundance on the Island of La Plata, we fully expected to find them in our excavations. The few specimens mentioned above, and one other found in the same mound, were the only examples at all approaching this type of relics, which we were able to discover in our researches in Manabi; but we have a number of analogous specimens from the Island of La Tolita, at the mouth of the Rio Santiago, in the province of Esmeraldas. The specimens which we obtained from the mainland are, in a number of respects, different from those from La Plata. While many of those found by Dorsey are engraved, none of the mainland specimens have this feature, and they are quite small. We are indebted to the learned Gonzalez de la Rosa for a clue as to the meaning of these very singular objects. In a review of our preliminary report of the antiquities of Manabi, published by him in the "Revista Historica of Lima," Mr. de la Rosa, in commenting on the finds of Dorsey, remarks, "The engraved and symbolic stones, and series of stones, of divers forms, are, without doubt, graphic, like those which the Caras of Quito used in place of *quipos*, although Dorsey did not suspect it."[83] We believe that there can be no question concerning the correctness of Mr. de la Rosa's identification of these stones as having been used by the ancient inhabitants of the coast to keep their records, in place of the *quipos*, made of knotted strings, used by the people of ancient Peru. This was a method of numeration, and of keeping accounts, by cords of various colors. Smaller lines were attached in the form of a fringe, on which were knots in an almost infinite variety of combinations. We quote herewith from Velasco, the source which has undoubtedly served Mr. de la Rosa in coming to his conclusion. In the "Historia Antigua del Reino de Quito," by Velasco, he states that he obtained his information from the work of Fray Marcos de Niza, whose history, he says,

is the only fountain of information which merits confidence. Unfortunately, we know of this work only through the extracts which have been quoted by Velasco. On p. 7, Velasco writes: "They used a kind of writing more imperfect than that of the Peruvian *quipos*. They reduced it [the writing] to certain archives, deposits made of wood, stone, and clay, with divers separations in which they arranged little stones of distinct sizes, colors, and angular form, because they were excellent lapidaries. With the different combination of these, they perpetuated their doings and formed their count of all." On the same page, in treating of the number of years of the Cara rule of the province of Quito before the coming of the Incas, he continues: "Some, by their traditions and the deposits of the little stones, extended this to seven hundred years, with the succession of eighteen *scyris*, and others, with the same counts and traditions, only extended it to five hundred years, with the succession of eighteen *scyris*." These statements clearly show the system to have been imperfect. Again, in treating of the burial-customs of the *scyri*, or kings of Quito, Velasco writes on p. 33, as follows: "Their bodies were embalmed with their royal insignia round about and the treasure and jewels which each one sent, if they could. Above each one extended a hole or little niche, where a small figure of clay, stone, or metal, was represented, and inside were the small stones, of various shapes and colors, which denoted his age, the years and the months of his reign." Velasco gives one other reference to the use of the little stones in place of *quipos;* but, aside from this single authority, we find no other statements regarding this interesting method used by the Caras, after, according to their own traditions, they had left the low coastlands, and migrated, by way of the Esmeraldas Valley, to the highlands in the vicinity of Quito. The little stones of distinct sizes, colors, and angular shapes, used for the purpose of keeping historical and other records, are thus found on the coast in the examples from La Plata, Cerro Jaboncillo, and La Tolita, not far distant from the southern frontier of Colombia, and each varies with the locality. The stones found with the skeleton in Mound 3 will be found illustrated in Nos. 1 to 4 of Plate LXVI, and also another specimen, which is a small squared piece of diorite from the general digging of the same mound (see No. 5 of the same plate). The specimens are all of natural size.

The objects of this type from Esmeraldas—many of which are lozenge-shaped, and of different colors and various kinds of stone—will be treated in the volume on the archeology of that province.

GOLD, SILVER, AND COPPER. In the preliminary report we referred to the statements of the Spanish chroniclers regarding the extensive use of gold by the natives. Although hunting for treasure was not the object of our work in Manabi, still we were disappointed in the sparsity of metal objects, in comparison with the considerable number of skeletons, discovered by the Expedition. In the section on excavations in Cerro Jaboncillo, we noted the occurrence of a few pieces of gold found with the skeletons in the mounds. A microscopic examination and analysis of these specimens reveal the fact that the objects are not pure gold: in fact they are copper, sometimes wire with a thin overlay of the precious metal. This overlay, or plating, is either fused or hammered on to the copper matrix, and is really an overlay forming a thin lamina of gold. On the flat specimens, considerable pressure appears to have been used in order to have the gold adhere evenly to the copper. This was probably done by hammering, and then polishing. In one specimen, however,—a tiny ring somewhat similar to the one which we illustrate (see No. 9 of Plate LXVI), but slightly smaller,—the overlay is thicker than in the other specimens, and in places has begun to flake off in slivers, due to the fact that the ring, like all the other objects of this class, is considerably corroded, and has begun to disintegrate. In most of the specimens, the lamina appears to be of high-grade gold. From the Esmeraldas province, we have also specimens of copper plated with gold, and from the Cara region of the interior province of Pichincha, we have four copper discs with gold-plating on the obverse side. These discs are like those which we have described and illustrated from Manabi, although thinner and smaller.

We may here refer to the fact that apparently analogous specimens of gold-plated copper objects are found in the province of Chiriqui, Panama. Professor Holmes in his masterly study, "Ancient Art of the Province of Chiriqui," mentions objects of this character, and has discussed at length the processes possibly employed in making such metal objects. He writes that "many, if not most, of the objects, appear to

be either plated or washed with pure gold, the body or foundation being of base gold or nearly pure copper." A suggestion as to the means employed is given by Holmes in the following statement: "Mr. Kunz suggests still another method by means of which plating could have been accomplished. If a figure in wax were coated with sheet-gold and then incased in a clay matrix, the wax could be melted out, leaving the shell of gold within. The cavity could then be filled with alloy, the clay could be removed, and the gold, which would adhere to the metal, could then be properly burnished down."[84]

It is a most interesting fact, and one of great importance in our studies, that the art of gold-plating on copper was confined to the strip of Pacific coast extending from Manabi north to Panama. Until we extend our researches into the interior regions of Ecuador and Colombia, we are unable to state whether or not the plating of metal was practised by any of the tribes except in the Cara province of Pichincha. We do not know of the occurrence of this custom in Central America north of the province of Chiriqui, nor, so far as we are aware, have plated objects been found in Peru. The conclusion is immediately suggested, in line with other similarities of culture which we have encountered in our examination of the antiquities of the province of Manabi, that there is an undoubted connection between the peoples of this strip of coast as far north as Chiriqui.

The few objects illustrated are all natural size. No. 7 of Plate LXVI is a pair of tweezers found with skeleton 23, Mound 3. It measures $1\frac{1}{4}$ inches (3.2 cm.) in height. The overlay of gold is found on the inside as well as on the outside of the specimen. Tweezers for depilatory purposes are not uncommon in various parts of ancient America. The next specimen which we illustrate, No. 8 of the same plate, is not of gold. It is a ring of copper on which are a large disc-shaped greenstone bead and a tiny bead of lapis lazuli. The latter bead has two tiny punctures in addition to the large central perforation by which it is attached to the ring. This ornament and the next specimen (No. 10), which is also copper and has a greenstone bead attached, were possibly ear-rings, and were found with a skeleton in Mound 3. One of the copper rings overlaid with gold, to which we have referred, is shown in No. 9. It is a little less than $\frac{3}{4}$ of an inch (2 cm.) in diameter, and is

of about the same size as five other specimens. Three of these rings are overlaid with gold, and three have no gold covering at present, although there is a possibility that the gold has flaked off. The seventh ring found with this skeleton is slightly less than 1 inch (2.5 cm.) in diameter, and bears traces of the gold overlay. All of the rings are merely pieces of wire bent in circular fashion, the ends just touching each other, but allowing a play, so that they might be inserted in either the ears or the nose.

Several flat rings were with the skeletons in Mound 3, one of which is illustrated in No. 11, Plate LXVI. It is about 2 inches (5.1 cm.) in diameter, and, like the others, has been overlaid with gold. Two others of about the same size were in a broken condition, and there were a number of fragments of flat rings of the same character. An analysis of one of these fragments shows a percentage of 1.6 per cent of gold in the overlay. In this specimen, which is slightly broader than the one illustrated, the overlay is highly burnished.

A single small ring made of gold wire was found with a skeleton in corral 47. This is the only piece which we have seen in Manabi, but we were informed by a friend in Caraques, that a gold disc with an animal's head in the centre, similar to the copper discs, was found some time ago in Calceta. It is somewhat surprising, in view of the great number of gold objects from the province of Esmeraldas, that we found but one specimen of gold in our explorations in Manabi. Nor did we find any traces of silver, although we have the explicit statements of early writers that they obtained silver as well as gold from this region. We recall here the statement of Zarate, which we quoted in the first report, that the gold was of a low grade, and it is possible that much of the gold found by the Spaniards was simply the overlay on a matrix of copper.

A few additional pieces of copper have been added to the collection. In the first report we figured three copper bells averaging slightly over 1¼ inches (3.2 cm.) in diameter, and we illustrate here (No. 12 of Plate LXVI) a small bell a little over ½ inch (1.3 cm.) in diameter, similar in workmanship to those heretofore published, but finer. We also obtained one other copper axe, about 3½ inches (8.9 cm.) long, similar to the one which we illustrated in the preliminary report.

We have seen several copper discs such as we described on pp. 71 to 73, and illustrated on Plate XLI of the preliminary report. One is in the British Museum. It is perfect, and has a large puma head in relief, with a design over the forehead. This specimen is larger than any in our collection. It was exhibited at the Paris Exposition in 1867, and was found in the region between Porto Viejo and Jipijapa. Another, which is broken, is in the Berlin Ethnographical Museum. It is about 14¼ inches (36.2 cm.) in diameter, and the puma head in the centre is a little over 7 inches (18 cm.) in diameter. The label states that it is from Las Anonas, possibly a mistake for Las Animas, between Porto Viejo and Jipijapa. Another specimen, from the vicinity of Caraques, is in the Santos Collection. It has an average diameter of 3¾ inches (9.6 cm.). All of these specimens of discs have perforations just above the head, and usually there are one or two perforations in the vicinity of the mouth. These, as we have heretofore conjectured, were probably for holding feathers or objects of decoration. We still adhere to the opinion that they were used as gongs, although they may have been worn on the breast. In describing the small clay figures of our collection, we call attention to a disc worn on the breast, of which we have several examples from Esmeraldas. They show that discs of small size, perhaps of copper or gold, were worn on the breast. We are not justified in believing that the large copper discs of our collection were shields, as is the opinion of many people along the coast.

SHELL AND BONE. In the excavation of the mounds of Cerro Jaboncillo, as has already been stated, we found sea-shells in various parts of the mounds. The greatest number of shells, shell ornaments, and objects made of shell, were found with skeletons 18 and 19 in Mound 3. Hundreds of shell beads were discovered, some very small and irregularly shaped, while others were of the type shown in No. 7 of Plate LXVII. Another type of shell ornament is No. 6 of the same plate, which is cut from an oliva shell. This is the only one of the kind which we discovered. The most unique objects of any material which we came upon in Manabi are the little boxes or receptacles found with skeletons 18 and 19, and illustrated on Plate LXVII. We illustrate these two specimens, giving the front and back of each, and both

were found with skeleton 18 in Mound 3. The first, shown in Nos. 1 and 2, is cut from a cassis shell, the cover being a fragment of a valve of a *Meleagrina margaritifera*. As will be seen, the outer side, shown in No. 2, presents an aperture which has been cut through the shell in such a way as to leave a decided rim for a cover. The under side, shown in No. 1, is given with the cover in position. It is not evident just how this cover was held in place. This specimen is $4\frac{1}{2}$ inches (11.5 cm.) long. The other receptacle, shown in Nos. 3 and 4, is practically complete. It is made from a *Conus* (*Figulinus*) *pyriformus*, and is 4 inches (10.2 cm.) long. The drawing (No. 3) shows a circular opening cut in the shell, which is filled with a cover of a lime-like substance. The lip side of the shell is shown in No. 4. It has been closed by a lime-like substance,—possibly baked, but very much hardened,—over which, as shown in the illustration, is a potsherd, the original vessel having been considerably polished, and having red decorations. The shard was cut so as to accurately fill the space, and was evidently cemented on. Inside of this shell, just below the circular opening, is a thick incrustation of a dirty, yellowish lime-like substance. We believe that these little shell boxes or receptacles were used for holding lime, and served as part of the outfit of coca-chewers. This feature will be considered at length when we treat of the little pottery vessels illustrated on Plate LXVIII. We have four other specimens of shell boxes, and found several others, but they were in too fragmentary a condition to save. In two of these there is a considerable incrustation of lime. The other specimen of shell, shown in No. 5 of Plate LXVII, is a *Cypræa cervinetta*. This, also, has a circular opening cut in the outer side, but we did not find any cover for the outside. It was, however, probably used for the same purpose as the boxes just described. Shells covered with mosaics of turquoise, gold, and bits of shell, and used for boxes, have been found along the coast of Peru; but we have not seen any objects of this character farther north than Manabi.

If we were to judge from the scarcity of the material, we should say that bone was rarely used by the ancient people of Manabi. The few specimens which we obtained, made from this material, will be found illustrated in Plate LXVII. No. 11 is a bone awl $6\frac{3}{4}$ inches (17.3 cm.) long, and was found near skeleton 18, Mound 3. A small

awl seen in No. 10, which is only $2\frac{7}{8}$ inches (7.9 cm.) long, is highly polished and has a green stain, due to contact with some copper object. Both of these awls were probably made from deer-bone. A gouge-shaped implement is illustrated in No. 9, and was found in skeleton 29. It is $4\frac{5}{8}$ inches (11.8 cm.) long, and was made from the leg-bone of a deer. A number of charred tips of deer-antlers with polished ends, which were probably used as awls, were found with a skeleton in corral 47, Cerro Jaboncillo. Several pieces of deer-antler, one of which is worked, were found in the general digging of Mound 3. Two small pieces of the bone of a fish, which possess tiny spines, the base worked to a point, the tip being missing, were found with skeleton 18, Mound 3. They were undoubtedly used as tips of small arrows to be used in blow-guns. A larger piece of the bone of a fish, which also has spines, the tip end being broken off, was about 4 inches (10.2 cm.) in length. This, too, was probably used as the tip of a long spear, and was found with the same skeleton. The presence of these tips with skeleton 18 points to the possibility of their having been in the body, and may be the evidence of a violent death of the individual buried in this grave. Two vertebræ of a fish were found in corral 50. These apparently have been worked, and one has a perforation through the centre and two pairs of lateral perforations opposite each other on the side. The larger specimen has the same lateral perforations which are a feature of the vertebræ, but none through the centre. The use of these vertebræ is unknown. The one with the perforation might possibly have been used as a spindle-whorl. The most interesting specimen of bone, and the final one to be described (see No. 8, Plate LXVII), is cut from the leg-bone of a deer. It represents a seated male figure; the front part is broken and the head is missing. A line is represented around the waist and extending down between the legs at the rear. It is the loin-cloth found on many of the pottery figures. The knees are evidently bent, and the elbows rested upon them. All other parts of the carving are missing. It was probably an idol, and is the only example of the use of bone in sculpture. A number of fragments of charred bones of a large mammal, probably a whale, were found with skeleton 14, Mound 3, and their presence in the grave indicates that they were used for some ceremonial purpose.

CERAMICS FROM HILL REGION. One of the most distinguishing features of cultural development in ancient America is the potter's art. In general, we may say that certain groups or types of pottery from South America are fairly well known, and usually can be distinguished at a glance by their form or decoration. The distinctive arybal of Cuzco and other parts of the so-called Inca Empire is a form found from northern Chili to Quito, and from the northern coast of Peru to Argentina.[85] The characteristic urns of the Calchaqui region of Argentina, the elongated urns of the Imbabura province of Ecuador, the deeply incised pottery of the Island of Marajo, Brazil, and the highly polished black-ware of the Cauca valley, Colombia, are all locally developed types peculiar to restricted areas. In the Republic of Ecuador, which we are now trying to cover in our researches, we find in the great Andean valleys a number of groups of highly localized types of pottery, examples of which have been made known to us by Stübel, Reiss, Koppel, and Uhle, by Bamps, Whymper, Suarez, and Seler. Up to the present time, not a dozen specimens of the pottery vessels from the coast of Ecuador have been illustrated. Our explorations will therefore lay the foundation for a knowledge of the ceramic art of this interesting section of South America. Our large collection of pottery from the province of Esmeraldas will be described and illustrated in Vol. III of our series of publications.

The ceramic art of the province of Manabi was but slightly touched upon in our preliminary report. On the first expedition we secured practically no vessels, and the material which we published was confined largely to the delineation of numerous designs on spindle-whorls, and to the description and illustration of a variety of whistles and human heads, and also fragments of figures. These were obtained by purchase from the natives in the vicinity of the hills, and they gave us but little idea of the types of vessels used by the ancient people, or of the variety of figures produced by this art. In our excavations among the corrales and mounds of Cerro Jaboncillo, as has already been related in the description of these excavations, we found a considerable number of pottery vessels. Sometimes these were with human skeletons, but in numbers of cases they were entirely separate from the remains of burials. The collection secured of this class of activity relating to

the potter's art will now be described, and a selection from the material will be illustrated on Plates LXVIII to XCVIII. Other specimens of pottery from the Manabi and Guayas coast will be treated at the end of this monograph.

The pottery vessels which we secured are of two general classes, namely, utilitarian and ceremonial. Undoubtedly, many of the ollas and bowls were food-vessels, used for ordinary household purposes; certain others, unquestionably, were only intended to be used on ceremonial occasions in connection with their religious festivals; while still others, possibly, were made only for interment with the dead. Besides the pottery vessels, we have a considerable number of human figures which are of very great interest. A few of the figures are vessels, and in the specimens from north of the hills in the vicinity of Caraques are a number of forms which are unique. We have added to the series of moulds for making pottery figures, and also present a number of new stamps or seals. Many hundreds of new spindle-whorls were secured; and a number of these designs, differing from those which we previously published, are presented for study. In the collection of smaller objects, such as human and animal figures and fragments of the same, will be found many specimens of great interest. We publish only a portion of this material, but include in our illustrations all types which offer any special features for our study. The graters illustrated on Plate XCVIII are of great importance in defining the geographical extent of the culture of Manabi. In a general way, we may say that the pottery of this region presents certain striking local characters, and is quite distinct in type from that of the region to the north and to the south. There are, however, as we have already said, certain resemblances between this ware and that of Esmeraldas; but, when the pottery of each province is assembled, the difference in their general appearance will be found to be almost as striking as is the case with the ceramics of ancient Peru. This will be apparent at a glance when comparing the objects of ceramic art of our collection with material which has been published from the Peruvian coast. The differences between the Manabi material and that of Esmeraldas, as well as the resemblances of the two, may be studied when we publish the material, which we have already in hand, from the Esmeraldas field.

POTTERY VESSELS. The pottery vessels and fragments now to be described on Plates LXVIII to LXXVI were nearly all obtained from our excavations in Cerro Jaboncillo. We do not illustrate the entire collection of complete and broken pottery vessels, but include on the plates a sufficient series to give an idea of the general types of vessels which we have been able to bring together. As will be seen in the specimens on Plate LXXV, which are the necks of large ollas, we have no complete vessels of this type, and, again, on Plate LXXVI there are a number of fragments of vessels of which we could not obtain any examples. In the great number of potsherds found in the general digging in the corrales and mounds, we find indications of many more forms than those illustrated; but the fragments are too small, and present too little of the entire vessels, to aid us in our study. There is no doubt that the range of forms of the ceramics of Manabi is much more extensive than we are able to bring out in our researches. Only long extended and very careful excavations in the corrales of Cerro Jaboncillo, in the tombs of the La Roma district, and various other adjoining sections of this part of Manabi, will give us the needed material to extend our survey of this phase of Manabi culture.

With but few exceptions, all of the pottery vessels which we illustrate, and the potsherds of the collection, are without color; the general style of decoration being either modelled designs in relief, or incised patterns. Some of the pottery has a high finish, a polish produced by rubbing; and these polished vessels are often of a dark-gray color, sometimes having designs in a different shade of the same tone. In some instances there is a brown-orange color in the figures. We have a few fragments of pottery figures which show blue and yellow pigment for decoration on a dull terra-cotta ground. One of these is the right arm of a figure, showing the open hand extended in front of the body. A thin wash of bluish-green paint covers the arm down to the wrist. Around the wrist and the fleshy part of the arm, just below the shoulder, are yellow bands. The general modelling of this fragment, and the colors, are identical with those found in the large figure from the vicinity of Caraques, illustrated on Plate CIII, which will be described later. On one of the figures which we shall consider under the section devoted to pottery human figures, we have several colors.

We excavated a single fragment of a vessel of very great interest. It is a small, triangular section of a bowl, probably similar in shape to the vessel shown in No. 8, Plate LXX. This shard is buff-color inside, painted red on the outer surface, and has designs in black and light-brown. In the thinness of the wall, the excellence of the ware, and the high polish and design, it reminds us strongly of pottery vessels, as well as thousands of fragments, which we secured at the ruins of Copan, Honduras, in 1891, while we were engaged in archeological work for the Peabody Museum of Harvard University. This painted shard which we have just mentioned is unique for the coast of Ecuador, so far as our collections go; and we know of no similar ware from Colombia to the north, or from Peru to the south, although there is a slight approach to this type of painted bowl in vessels from the Ica district in southern Peru. The color of the clay, and the finish of the inner surface of this shard, seem to indicate that it probably came from Coaque or vicinity, as, with the exception of the painted decoration, the ware is identical with a vessel we excavated at Coaque, and which is illustrated in No. 3, Plate CI. In the fragments of pottery vessels which we do not illustrate, and which we shall not describe in detail in this monograph, we find a few examples which resemble the ware of the Esmeraldas province, and these points will be more fully dwelt upon in our volume on the archeology of Esmeraldas.

The vessels which we shall now consider have been grouped on the plates in accordance with forms, so far as we can arrange them. On Plate LXVIII are eight examples of very small vessels, the only small ones which we obtained. The first three specimens on this plate are of peculiar interest, not so much by reason of their form as because of the indications which they contain bearing on their use. In each of these tiny vessels, as we are able to show around the rim of No. 3, are the remains of a somewhat hardened incrustation of dirty yellowish lime. The conventionalized shell-shaped vessel shown in No. 3 contains a layer of considerable thickness, which extends down below the rim, covering a third of the space inside. We believe that these little vessels were used as receptacles for lime by a people having the custom of chewing the coca-leaf, and in this connection we shall bring forward the evidence which we think confirms our conjecture.

With many of the mummies discovered along the coast of Peru are found outfits for coca, consisting of cloth bags containing the leaves of coca, and gourds filled with lime. This outfit, which was placed inside of the mummy-pack, was supposed to have been of use to the deceased after death. In some of the pottery vessels the taking of coca is represented. The custom of chewing the coca-leaves still exists in many parts of Peru and Bolivia, and also in Colombia. Some years ago a little booklet on coca was published by Mariani. In this pamphlet, in a short chapter devoted to the history of coca, we find an illustration of a gourd which was in use in Colombia in recent times. We quote as follows, Mr. Mariani's description of the use of this gourd, called *poporo*, and some notes concerning the custom of chewing coca in Colombia: "The *poporo* is a little gourd bored at the mouth on the upper part, in which the Indian keeps his *llipta*. This *llipta* is a white powder composed of ashes of vegetables, and calcined shells pulverized, with which the consumers of coca have been accustomed, from the most remote times, to season their quid. It is, really, an alkaline substance intended to isolate the different principles of the leaf and to make the action of the coca more prompt. . . . The only occupation of the first days of the adult is the much-loved quid of coca and the incrusting of his gourd, which we cannot do better than compare to the coating of the pipe, with this difference, that our confirmed smokers blacken hundreds of their pipes during their existence, while the Indian incrusts only one gourd in his whole life; so that by the thickness of the crust formed around a *poporo*, it is possible to judge the age of its owner. This crust, which hardly ever exceeds the thickness of a ring on the *poporo* of a young Indian, ends by reaching the dimension of the pileus of a large mushroom on the *poporo* of an old man. The crust is produced by the particles of coca and *llipta* mixed with saliva which are deposited little by little about the mouth of the *poporo* by smearing with a stick. These deposits are brought about in an almost imperceptible manner. It is only after some months that the surface of the *poporo*, on which the chewer continually turns the little stick, becomes covered with a hardly perceptible layer of calcareous substance; at the end of two or three years the superimposed layers form a ring, which grows larger from year to year, and which finally attains the thickness we have spoken of above."

The incrustation on the gourd, *poporo*, figured and described by Mariani, is similar in character to the incrustation on the little vessel shown in No. 3, Plate LXVII. In the description of the objects of shell secured by the Expedition we have called attention to the shell boxes. In the specimen figured in Nos. 3 and 4, Plate LXVII, we find the same incrustation, and we are led to believe that these shell receptacles were used for the same purpose, namely, as *poporos*.

Baessler has given us additional material concerning this custom in ancient Peru. In his work on "Ancient Peruvian Art," Plate 39, he has a series of illustrations, drawn from his collection, bearing on this subject. His first illustration, Fig. 198, is of a jar, and he describes it as follows: "In the first scene, the man seized by the forelock is in the act of striking with a club held in his uplifted right hand, while his opponent holds his weapon quietly in his left. In the second, a man squatting peacefully applies the coca to his mouth, while his arms lie behind him and his knife is introduced above to the left, probably merely to fill in the otherwise empty corner. He keeps the coca-leaves in the pouch hanging at his arm. With the little rod held in his right hand he conveys to his mouth the lime which he has taken from the box held in his left." About the other specimen he writes: "Fig. 199, from Trujillo, presents even a better picture of such a coca-eater. The small bag on his right knee, containing the coca-leaves, is illustrated by Fig. 200, found at Chuquitanta,—a satchel woven of blue and white yarn attached to a brown band crossed with black threads.

"The lime-box in his left hand is reproduced at Fig. 201. The original, however, of this drawing, was not unearthed in Peru, but comes from the Indians inhabiting the Sierra de Santa Martha in Colombia, and is now in the Berlin Royal Museum of Ethnology. To the perforated neck of an emptied gourd has been attached a ring of some indurated substance, which, being stained a dirty yellow, looks as if covered with leather. On it biggish lumps of the unslaked lime are ground to a fine powder with the slender rod stuck in the box. This is done before the lime is carefully conveyed to the mouth, because the smallest particle applied to the lips or gums causes an intolerable burning pain. Hence the plan is to moisten the little rod, dip it into the powder, and then thrust it directly into the ball which has

been prepared in the mouth by chewing the coca-leaves freed from their nerves.

"With the coca-boxes of my collection, for the ring is substituted a wooden mouth-piece which is set on the gourd and to which is fastened a piece of pliable leather, which when spread out presents even a larger surface than the small plate.

"Fig. 202, from Chuquitanta, shows the box with expanded leather, and the gourd richly ornamented. With Fig. 203, also from Chuquitanta, although the leather is missing, the string is still in place by which it was once fastened; it even still retains a few scraps of leather, whose somewhat fresh edgings show that the attachment has only recently fallen off. Thereby the wooden mouth-piece on the picture can be clearly recognized. The gourd is decorated with incised and painted birds and fishes, while the rod is crowned with a carved animal figure. Other boxes are mounted with silver at the mouth-piece and the head of the rod, or are otherwise embellished; in all of them lime is still found, and also still adheres to all the bits of leather."

The three little vessels which we have just described, which are shown in Nos. 1, 2, and 3 of Plate LXVIII, were found in Mound 3, and Nos. 2 and 3 were with skeleton 19. No. 1 is $2\frac{1}{2}$ inches (6.3 cm.) high; No. 2 is $3\frac{1}{2}$ inches (8.9 cm.) long; and No. 3 is $2\frac{3}{4}$ inches (6.9 cm.) long. As will be seen, No. 1 is a little olla with a rude human figure on one side; and No. 2 is in the shape of a seated human figure, the vessel being the body, which takes the shape of a small olla.

The other small vessels shown on Plate LXVIII are quite small. No. 4 can hardly be called a vessel. It is only $1\frac{1}{2}$ inches (3.8 cm.) high, and is almost a solid piece of clay. The cavity extends slightly less than half the length of the vessel, and is less than $\frac{1}{4}$ inch (.7 cm.) in diameter. It is in the shape of a small olla, and is decorated with incised lines. It contains a hardened lime-like substance, and it is possible that this tiny vessel was used for the same purpose as were the three preceding specimens just described; namely, to contain lime to be used in chewing coca. It was also found in Mound 4 with the other specimens.

The two little vessels illustrated in Nos. 5 and 6 come from Papagayo No. 5 is only $1\frac{3}{4}$ inches (4.4 cm.) in diameter, while No. 6

is 2½ inches (6.3 cm.) in diameter. Both of these little vessels are well made, being very regular in their outline. No. 5 is decorated around the rim with incised lines. No. 6 is apparently modelled in a framework of grass or rushes, bearing, as will be seen in the illustration, a series of corrugations, which are the impress of the covering in which it was apparently baked. Both of these tiny vessels are too small to have served for other than playthings or votive vessels. The peculiar shaped vessel shown in No. 7 is from La Secita. It is 3 inches (7.6 cm.) in diameter, and the rim is broken. Like the other two specimens just described, it could hardly have served for other than ceremonial purposes. Probably vessels of this sort were made for offerings to be placed with the dead. The last specimen, No. 8, calls for no special description. It is from La Secita. The rim is broken off, and it is 2½ inches (6.3 cm.) high.

These tiny vessels, and the three which we illustrated on Plate XLII of the preliminary report, are the only small pottery vessels which we secured in Manabi. In Esmeraldas, small pottery vessels are almost entirely lacking, and it does not seem probable that many objects of this sort will be found, except when encountered with skeletons in burial-mounds or in tombs.

We have brought together, in our illustration on Plate LXIX, a number of vessels of different sizes and shapes, which cannot be included in the number of groups of well-defined forms which we illustrate on the succeeding plates. The large olla, No. 7, was a very common form in the hill region. We excavated scores of fragments of more or less imperfect examples of this type of olla, characterized by a somewhat globular body with a large opening, and rather small, flaring lip. In some cases, as will have been noted in the description of the excavation of the corrales, these ollas were found set into the floors of the corrales. The specimen under consideration (No. 7, Plate LXIX) was found near corral 1, with a skeleton. It is 10 inches (25.4 cm.) high, and about the same dimension in diameter at the rim. Referring to Plate XXI, we see the rim of an olla of the same shape, but slightly larger, which was found in corral 30, in the baked clay floor. It is thus seen that ollas of this sort were placed not only in graves, but in floors of the corrales, and they probably served for various

purposes, as the one found in corral 30 contained ashes. These vessels are entirely without decoration, are of a somewhat porous brownish ware, and contain no paint or polish, except around the inner part of the rim, which is painted a deep red. The large olla shown in No. 8, Plate LXIX, was found in a mound in Papagayo, and is used by the owner for containing water, serving admirably for the purpose. As will be seen, the rim is very small, and the vessel is more than twice the size of the specimen shown in No. 7.

Ollas of the size and shape just described are of a type commonly found in various parts of ancient America, and are primarily used both for water-vessels and cooking purposes. In our description of corral 48 (see p. 78) we mention the finding of deposits of ollas, and on Plate XXI a view of some nested ollas is given. The largest olla is 2 feet 2 inches (66 cm.) in diameter. There were two deposits of ollas found in the corral, and these vessels were of the same shape as the specimen shown in No. 7, Plate LXIX.

We secured a very large, basin-like vessel with a flat bottom (not illustrated), which was found in a mound in Papagayo. It is 9 inches (22.9 cm.) high, and 22 inches (55.9 cm.) in diameter. It is well modelled and made of a brownish clay, the outside part being simply smoothed, while the inside has been painted red. In general shape and coloring this large basin is like No. 3 of Plate LXIX. The latter specimen, however, is very much smaller, being only $3\frac{1}{2}$ inches (8.9 cm.) high, and $8\frac{1}{2}$ inches (21.7 cm.) in diameter, and it has been decorated with a head rising from the rim, which is now broken off. This vessel is also from Papagayo. The first described vessel is the largest specimen of pottery which we secured in Manabi, but we excavated fragments of vessels which probably were of the same character and size.

The other specimens on Plate LXIX are more or less broken, the only one fairly complete being No. 5, which is a small olla from Cerro de Hojas. It has a slight decoration around the upper part of the body, made of incised lines and dots. It is about 5 inches (12.3 cm.) high. No. 2 lacks the flaring annular base. It was excavated in Cerro Jaboncillo, and is a dark-gray, highly polished vessel 8 inches (20.3 cm.) high. The little specimen illustrated in No. 4 is a pitcher, the handle being broken and the upper part of the narrow tubular neck missing.

The ware is a light gray mottled with brown spots, and in general it presents a different appearance from the rest of the pottery of Manabi. From the shape of the pitcher and the general technique of the workmanship, it came probably from the northern part of the province. It is 3¼ inches (8.3 cm.) high.

One of the interesting specimens on this plate is No. 1, which is from Cerro de Hojas. The rim is broken, and also the feet which once supported the vessel. It is now 4 inches (10.2 cm.) high, and 7 inches (17.8 cm.) in diameter, and the base shows six circular spots where the legs, now broken off, were attached. These legs were evidently three looped, forming a tripod similar to those in No. 3, Plate LXXI. It is not probable that this vessel had six feet, although we have already called attention, in our notes on Cojimies, to the fact that bowls with five feet are found in that region. However, we have never seen any with six feet, hence it is practically certain that this vessel was supported by looped tripod feet. No. 6, Plate LXIX, is not a complete vessel, but simply the upper part of a large olla, probably like, or a variation of, the type of olla shown on Plate CXII, from the vicinity of Cape Santa Elena. The fragment under consideration is 7 inches (17.8 cm.) high, and the upper part has an extreme diameter of 10½ inches (26.7 cm.). As will be seen, it is part of a large vessel, and evidently in former times was cracked, as we find that four holes had been bored into the neck just above the place where it had been broken off from the larger body of the olla. Cords passed through these holes served to hold it to the base. Holes in pottery for strengthening cracked vessels are often found in various parts of America; and from Manabi we have other examples of this custom, as will be seen by referring to Plate XIX, in the lower photograph, representing the base of a large pottery vessel found in Mound 1. This feature will also be observed in one of the necks of an olla from La Roma, illustrated in No. 5, Plate LXXV. The fragment of the large vessel under consideration shows a large, flattened gourd-shaped section, once decorated with a head of an animal or human face (now missing), and this gourd-shaped section rests upon a cylindrical neck. The ware is of a fine quality, grayish in color, and has been highly polished. In this respect it is similar to the Santa Elena olla and also

to some of the fragments of ollas from the La Roma district. It is from Cerro Jaboncillo, and is the only example of this type of vessel which we found in the province of Manabi.

We now come to the series of bowls illustrated on Plate LXX. Nos. 1 and 2 were from Papagayo, while the others were all found with skeletons in Mound 3, in Cerro Jaboncillo. The workmanship of No. 1 is the crudest found in any piece of pottery in the entire collection from Manabi. It is roughly shaped, and bears the imprint of fingers. The paste is fine, but not well baked. This little bowl is $1\frac{1}{2}$ inches (3.8 cm.) high, and 4 inches (10.2 cm.) in diameter. The other specimen (No. 3) is a shallow bowl of the same clay and general finish as the bowl illustrated in No. 3, Plate LXIX, and already described. It is, however, considerably smaller than is the other specimen, being 2 inches (5.1 cm.) high, and having a diameter of $5\frac{3}{4}$ inches (14.6 cm.). On each side will be seen projections arising from the rim, which were probably heads, although there is a bare possibility that they were parts of a handle. The specimens from Mound 3, Cerro Jaboncillo, vary in size both as to height and diameter. The smallest is No. 2, which is 2 inches (5.1 cm.) high, and $4\frac{1}{4}$ inches (10.9 cm.) in diameter; while the largest, No. 7, is 4 inches (10.2 cm.) high, and 8 inches (20.3 cm.) in diameter. In all of these specimens the decoration is an insignificant feature. No. 2, which is of a dull-brown color with black mottled spots, has three roughly incised lines around the rim. On No. 4 will be seen a small raised band surrounding a boss. No. 5 has simply a slight groove running around the rim. The deep bowl shown in No. 8 is one of the most interesting pieces of pottery from the Hills, as it is the only complete vessel we have on which are painted designs. These are brought out in the illustration. The general color of the ground-work of the vessel is yellowish-gray, and the design is a dull red. The rim has in one place a very slight depression, which is apparently not accidental. We found in our excavations many fragments of bowls of the type shown on this plate, the form being one of the commonest of the ceramic art of Manabi.

The next series of vessels shown in Plate LXXI are nearly all bowls of the type of those shown in the preceding plate, but we have in these vessels the additional feature of tripod feet and flaring annular

bases. Nos. 1 and 2 are simple bowls with tripod feet, of a dull-brown ware, and bearing no decoration on the outside. The decoration on the inner part of these bowls brings out a new feature. They have designs in a dull-brown, but slightly darker than the color of the vessel. In a number of fragments we found the same style of decoration, and some of the pottery vessels to be described later are decorated in this manner. The design in No. 3 shows a series of parallel lines running around the circumference of the bowl, with a cross occupying the lower part of the bowl. In the four zones formed by the arms of the cross inside of the circle, we find rude spirals.

The bowl shown in No. 3 is of the same type of ware, and has a rude decoration inside, so much obliterated as to be indistinguishable. The interesting feature of this bowl, however, is the looped tripod feet. We have no vessels from Esmeraldas with tripod feet of this character; but from the interior provinces of Chimborazo, in the region of the Puruhas, we have in our collection quite a number of bowls with looped tripod feet, but of an entirely different ware. Belonging to this same class of ware is the interesting bowl with flaring annular base shown in No. 4. We have one other complete bowl like this in the collection, and a number of fragments of bases. The base is decorated with deeply incised patterns forming three bands of geometric patterns. Of the same class of ware is the bowl shown in No. 7, and of this type we have several examples. The shape is much more elaborate than that of any of the other specimens of small bowls in the collection, and it should be compared with the large vessel shown in Plate LXXIII. The clay in this specimen is of a much better quality than is generally found in vessels from Manabi, being very fine and evenly baked, with a smooth and polished surface of a dull-slate color. The interior is decorated with lines of a darker color, but the patterns are conventional and crudely executed. Around the lower part of the bowl, below the large flaring rim, is a band with a simple incised pattern. The three other examples of bowls with annular bases, shown in Nos. 5, 6, and 8 of Plate LXXI, are of a different ware. Nos. 5 and 6 are of a light-brown color. No. 5 is decorated with a red band around the inner and outer edge of the rim. Below, inside, is an elaborate geometrical band, and at the bottom is a large design some-

thing like a complex conventional face; but these patterns, which are a darker brown color, are too faint to be easily distinguished. There is also a pattern around the flaring base, and a band of dull-red painted around the edge. The most interesting feature of this vessel is the stem connecting the base with the bowl. The stem is hollow, and has seven perforations, thus bringing the vessel into relation with the pottery bowls of the northern part of the coast of the Manabi provinces and Esmeraldas, as will be seen by referring to No. 3, Plate CI, the vessel from Coaque. We shall revert to this feature later on in describing the Coaque specimen. The other two vessels have no features worthy of any special consideration. No. 6 is of an orange-brown color, rudely decorated with patterns of a darker shade, both on the inside and outside; while the specimen in No. 8 is characterized by the very deep bowl resting on a small annular base. All of these specimens are from Mound 3 in Cerro Jaboncillo, and vary in size. No. 1 is the smallest, being 3 inches (7.6 cm.) high, and $5\frac{1}{4}$ inches (13 cm.) in diameter. None of the others are quite 6 inches (15.2 cm.) in diameter. No. 8, the highest, is $4\frac{1}{2}$ inches (11.5 cm.) high, and $4\frac{1}{2}$ inches (11.5 cm.) in diameter.

Belonging to this same class of vessels with flaring bases are the two specimens, Nos. 5 and 6 of Plate LXXII; but they are considerably larger than those just described. No. 5 was found in Mound 3, and is 5 inches (12.3 cm.) high, and 8 inches (20.3 cm.) in diameter. The other specimen, No. 6, was found in corral 50, and it has also been illustrated *in situ* on Plate XXI, showing the stone disc found inside. The edges of this stone are abraded, showing that it was used as a hammer-stone. The vessel itself has more the shape of a gourd than have the others, and is 7 inches (17.8 cm.) high. All of these bowl-shaped vessels are undoubtedly derived from the calabash. The vessel given in No. 1 of the same plate was found in Mound 3, and lacks the flaring annular base. It is characterized by a scalloped rim. No. 2 of Plate LXXII has an annular base of cylindrical form. The mouth of the vessel is small, and the upper part of the body of the olla is irregularly shaped. It is of a dull-gray ware somewhat weather-worn, is 6 inches (15.2 cm.) high, and was found in La Secita. The other two vessels shown in Plate LXXII are the beginning of a series which is con-

tinued on Plate LXXIII, and are really developments of the pottery bowls on Plate LXXI. They are both of an orange-colored ware, and were found in Mound 3. No. 3 is a shallow bowl, the flaring base being developed into a rude animal, possibly a turtle. It is $4\frac{3}{4}$ inches (12.2 cm.) high. The hourglass-shaped vessel, No. 4, is the smallest of our series of vessels of this shape. The upper section is a very shallow plate resting on a hollow, cylindrical stand with a broad, flaring base. It is $3\frac{1}{4}$ inches (8.3 cm.) high, and about 5 inches (12.3 cm.) in diameter, the plate part being but slightly larger in diameter than the base.

The six vessels of hourglass shape now to be described, illustrated on Plate LXXIII, with three other complete ones, and fragments of many broken ones not illustrated, were found in Mound 3. The greater number were found with skeletons. There are two classes of ware in this group. The small specimen on Plate LXXII, and Nos. 4 and 5 of Plate LXXIII, are of an orange-brown ware; while Nos. 1, 2, and 3 are a light black-ware. In this connection we would point to the fact that the bases of the black-ware vessels are all characterized by a fluting, a feature also found in the body of the goblets on Plate LXXIV, which are of the same black-ware, but with thinner walls. These hourglass-shaped plates form a unique class of pottery for South America. Bowls and ollas resting on high or low flaring bases, either hollow or solid, are found in the Esmeraldas, Chimborazo, Tunguragua, and Imbabura collections which we have brought together; but they are quite distinct in a general shape from the vessels of Manabi assembled on our plate. Nos. 1, 2, and 3 are all characterized by somewhat deep bowls with very broad, flaring rims, the walls decreasing in diameter downward to a very small bottom. As will be seen, the lines of the side of these vessels are straight, in contradistinction to bowls Nos. 4 and 5, and to two others (not illustrated) of the same ware, which are somewhat rounded. In the vessels of the lighter ware, the flaring base is the larger section of the vessel. In the black-ware, as seen in No. 1, we have the same feature; but in Nos. 2 and 3 the bowl itself is the larger section. We have fragments of a number of bases and several plates of vessels of this hourglass shape, which show some variation in the form, such as a smaller connecting stem; and, in two bowls of hourglass-shaped vessels, a terraced inner surface, somewhat like that of

No. 6 of Plate LXXIII, but lacking the corrugations. As a class, these vessels, so far as our investigations go and we are able to judge from the material which we gathered in Manabi, appear to be confined to Cerro Jaboncillo, as all of the specimens were found in the excavation of Mound 3. The dimensions of these five vessels are as follows: No. 1, 5⅛ inches (12.6 cm.) average height, 7¼ inches (18.5 cm.) diameter of rim, 6 inches (15.2 cm.) diameter of base; No. 2, 6½ inches (16.5 cm.) average height, 12 inches (30.5 cm.) diameter of rim, 9¼ inches (23.6 cm.) diameter of base; No. 3, 4½ inches (11.5 cm.) average height, 8⅜ inches (20.9 cm.) diameter of rim, 6¾ inches (17.2 cm.) diameter of base; No. 4, 7 inches (17.8 cm.) average height, 8⅛ inches (20.6 cm.) diameter of bowl, 8 inches (20.3 cm.) diameter of base; No. 5, 6½ inches (16.5 cm.) average height, 8 inches (20.3 cm.) diameter of plate, 6¼ inches (15.9 cm.) diameter of base.

The last specimen, No. 6, Plate LXXIII, really belongs to a different group, and it is perhaps the most unique example of pottery vessels secured in our researches along the Ecuadorian coast. It was found with skeleton 4 in Mound 3, and was broken into a great many pieces, some of which were missing; but we have been able to restore it. It is characterized by an enormous bowl-shaped base upon which, and resting on a short massive stem, is a very low, almost flat, flaring plate, having in the centre a very small, cup-shaped bowl. As will be seen by referring to the plate, it is covered with two series of deep incisions to serve for grating. The small cup in the centre is 2½ inches (6.3 cm.) deep, and 3¼ inches (8.3 cm.) in diameter. It doubtless served to receive the liquid or solid material from vegetable substances, produced by grating on this plate. We found fragments of several other vessels, probably of the same character as this extremely interesting and unique specimen. It is 7 inches (17.8 cm.) in height, 12½ inches (31.8 cm.) in diameter across the bowl, and 12½ inches (31.8 cm.) in diameter across the base. We shall refer again to this vessel when describing the graters illustrated on Plate XCVIII.

The goblets illustrated on Plate LXXIV were all found with skeletons in Mound 3. They are all of black-ware with the exception of the small goblet, No. 6, which is a light-brown color, varying to dark brown by burning. The five specimens of black-ware are an interesting

series characterized by elongated bodies resting on low, flaring annular bases. We are reminded immediately of golden cups such as have been found in Peru. Specimens Nos. 1 and 3 have the fluted bodies, and rims which are smaller than the body of the vessel, there being no recurved lip, as in No. 4. No. 1 is the smaller of the pair, being 7 inches (17.8 cm.) high, while No. 3 is 8 inches (20.3 cm.) in height. Nos. 2 and 4 somewhat resemble each other in shape; but No. 2 has a flaring, fluted upper section resting on a flattened, gourd-like lower part, and has no recurved lip, as in No. 4. It is 7 inches (17.8 cm.) high, while No. 4 is only about 6 inches (15.2 cm.) in height. The largest specimen of the series is No. 5, in general shape somewhat like Nos. 1 and 2, but it has no fluted body, and the diameter at the lower part of the elongated, gourd-shaped body, is larger than at the top. This goblet is $9\frac{1}{4}$ inches (23.6 cm.) high. The small cup, No. 6, has a flaring rim, and has the distinction of having a ridge at the base of the cup-like top, found on the hourglass-shaped vessels of black-ware described on the preceding plate. This specimen is $4\frac{3}{4}$ inches (12.2 cm.) high, and has nearly the same shape as the considerably smaller cup from Don Juan, illustrated on Plate CX. All of the vessels from Mound 3 which we have described on these plates were probably used only ceremonially, and, as we have before stated, we did not find any fragments of vessels of these groups in our excavations of the corrales. Before leaving the subject of these goblets, we must mention a small fragment of a very large cup, of which we have only a section of the upper part, the flaring annular base being missing. It has the feature of a ridge with three series of serrations, regularly spaced, around the lower part of the body of the vessel. On one side, midway between the rim and this ridge, is a large design in high relief, resembling a rosette. It has an outer band, and in the centre is a smaller band, seven balls being between the two. This specimen is of a grayish-brown ware, and inside are traces of designs in a darker brown, somewhat like the decoration of the bowls on Plates LXX and LXXI, it being of similar ware. The fragment is 6 inches (15.2 cm.) high with a diameter at the top of 7 inches (17.8 cm.). It is thus seen that this specimen was probably the largest of this class found in our work on the Hills.

We have brought together on Plate LXXV six necks of large ollas from the La Roma district. The rims of all of these, with the exception of No. 1, have been broken off, and in each of the specimens there is evidence of a grinding-down of the broken edges, which appears to be ancient. They are all decorated with rude faces; Nos. 2 to 5 being apparently animal heads, while Nos. 1 and 6 are human faces. The faces are identical with those which we published in the preliminary report, in Nos. 7 and 8 of Plate LIII. We have a number of others from the general digging in our excavations of Cerro Jaboncillo, all of which were undoubtedly decorations on the necks of ollas. These ollas had, probably, as will be seen in No. 1, flat, broad lips. No. 5 is interesting, as it has four holes drilled in the lower part, a feature to which we have already called attention, and which served to strengthen the vessel when cracked. These necks average from 3 to 4½ inches (7.6 to 11.5 cm.) in height, and have an inner diameter of from 2 to 3½ inches (5.1 to 8.9 cm.).

On plate LXXVI will be found a few potsherds selected from many hundreds secured in the general digging of the mounds and the corrales. In view of the great variety of fragments of vessels which we have in the collection, it is manifestly impossible for us to illustrate them all, and we give only a few which are of interest to us in our studies. Nos. 1, 2, and 3 are fragments of the rims of vessels, decorated with an animal head projecting upwards from the rim, and facing inside. These shards were parts of large, massive vessels, possibly basin-shaped, of a coarse brownish ware. No. 2 is the largest, and must have been a vessel of considerable size. The specimen shown in No. 4 is part of the neck of a large olla such as we have illustrated on Plate LXXV, and the face which decorates it is of the same general character. This fragment, however, is of a very much better paste than the other necks of ollas, and is of a dull-gray color with considerable polish. It had a large flaring rim, and on the upper part are found designs in darker color, similar to the decorations in other vessels to which we have referred earlier in this section on pottery. The large fragment of the upper part of an olla of brown-ware, shown in No. 5, is unlike any other which we have in our collection. It was found in Mound 1. The distinctive feature is the representation, in high relief,

of what is probably the paw of a puma. Among the potsherds from the mounds and corrales are a considerable number with incised decoration; such a one is shown in No. 6, which was apparently a goblet with a flaring annular base, probably somewhat similar in shape to No. 5 of Plate LXXIV, but very much smaller. The designs are roughly executed, and appear to be not realistic, but conventional patterns. The other five specimens on Plate LXXVI are the feet of tripod vessels of brown-ware. No. 7 is of the looped order; No. 8 is hollow, and possibly represents the head of a bird. The most interesting example among all of the potsherds on this plate is No. 9, inasmuch as it is identical in shape with many feet of vessels which are found in our collections from Esmeraldas, especially from the Island of La Tolita. The foot is hollow, has two perforations, and is probably derived from the head of a bird. The main feature is the low, thin, but slightly concaved plate, which rested on tripod feet, and of which only a portion remains. The ware, however, may be recognized as from this region, it being quite different in texture and coloring from the shards of the same shape from Esmeraldas. This specimen is the only one which shows practical identity in form with vessels from Esmeraldas, with the exception of the next two specimens, Nos. 10 and 11. These are large, massive feet of tripod vessels, and we have almost identical specimens from La Tolita. As will be seen, they are almost globular in shape, the bottom being developed into a slight cone. They are hollow, have many perforations, and contain small bits of clay, which cause them to rattle. These two specimens are the only ones of this character which we found in Manabi, and they were, in early times, broken off from the vessel, the broken surface from the upper part having been smoothed off, showing that they were undoubtedly used later simply as rattles.

This concludes the description of our pottery vessels from Manabi. As will have been noted, there are several groups which are unique, and we again call attention to the fact that the pottery is very much localized, and presents only here and there resemblances to the ceramic art of the other culture areas of Ecuador. In the section on pottery figures, which follows later, are a number of vessels, but, because of their greater interest as figures, we have not brought them into this

section. A final word may be said in regard to the general character of the pottery figures from Manabi. There is considerable difference in the quality of the ceramics. Some of the vessels are of a very fine paste, skilfully modelled, regular in shape, and exhibit much skill in the potter's art; while others are not so well modelled, and are of a coarser quality of clay. We find these differences both in the vessels which were probably used ceremonially, and in those which were used ordinarily for household purposes. The pottery vessels of Esmeraldas do not exhibit anything like the high degree of finish found in many of the vessels of Manabi. This may be due to the fact that the greater number of specimens of vessels which we have from Esmeraldas were found in damp ground, and probably had been submerged, thereby losing to a very considerable degree their original surface.

MOULDS. In our preliminary report we illustrated but a single example of a pottery mould, which came from Caraques. On Plate LXXVII we illustrate six moulds, with casts of the same, which we found in Cerro Jaboncillo. They are all given on the plate, natural size. The casts from Nos. 7 and 8 show complete human figures; while No. 4 shows a large complete bird, and No. 12, a small bird. No. 2 is a human head, but, although the mould is complete, it is of only the face and part of the neck, showing that the body must have been made in a separate mould. No. 5 is the largest mould, but it is incomplete, as shown in No. 6, which is the cast of a standing human figure minus the head. We have a number of moulds from Esmeraldas, all of a much larger size. Undoubtedly, all the small figures, and many of the small heads, which we have in the collection, several of which are illustrated on some of the succeeding plates, were made in pottery moulds similar to those which we illustrate on Plate LXXVII.

STAMPS. We stated in the preliminary report that stamps were not common in Ecuador, and we illustrated but four specimens (see Plate XLII of the preliminary report). As a result of our continued work in Manabi, we secured about thirty new specimens of stamps, twenty-three of which we illustrate on Plates LXXVIII and LXXIX, the other seven pieces being too fragmentary to be of service for illus-

tration. The specimens which we show on Plate LXXVIII are all flat, with the single exception of No. 14, which is a cylinder 3 inches (7.6 cm.) long. It has a hole running through it for the insertion of a stick, which serves as handles for rolling it over the substance to receive, either an impression from the very deep incised design, or the stamp of the pattern with color. Cylindrical stamps are common in Colombia, and they very closely resemble the stamp under consideration, and several others of a like character from the province of Esmeraldas. We have another fragment of a cylindrical stamp of the same class, from Manabi, which we do not illustrate. A number of the specimens on this plate are fragmentary, but some are complete, and there is a considerable degree of variation in the character of the stamps. All have a shank on the back for holding in the hand. Several, notably Nos. 2 and 4, are practically identical in design with stamps from the valley of Mexico. All are illustrated in natural size, and nearly all have geometric patterns, with the exception of No. 7, which shows a small conventionalized animal as part of the design, and No. 11, which appears to be a conventionalized face in profile, the eye and teeth being distinguishable.

The other stamps on Plate LXXIX present great variety in character. With the exception of No. 9, which possibly may not be a stamp, all have the shank at the back to serve as a handle. No. 1 represents a rude figure of a man or boy. Nos. 3, 4, and 5 represent birds. No. 8 is a grotesque face with a cleft forehead, somewhat like similar faces which are found in the designs on spindle-whorls on Plate XLVII of the preliminary report: in fact, they represent the same motif. No. 6 is very thin, and has simply a tooth-shaped, curved edge. No. 7 presents two circular lines of serrations. The last specimen, No. 9, is something like a pestle with a carved handle, the upper part being somewhat broken, and it served, possibly, as a grater to be held in the hand for rasping substances in a plate or bowl. It is possibly of the same class as the pestle-like specimen of clay illustrated on Plate L of the preliminary report, the base of which also has incised lines, but they are arranged in a different manner. All of the specimens of stamps, with the single exception of the cylinder, are illustrated natural size.

SPINDLE-WHORLS. During our recent visits to Manabi, we obtained hundreds of additional spindle-whorls, and on Plates LXXX to LXXXII we illustrate forty-six designs, different from those given on Plates XLIII to XLVIII of the preliminary report. No. 10 of Plate LXXX is quite different from any other, representing a rude human figure. The whorls Nos. 12, 13, and 14, are quite different in technique from any of the other specimens. No. 12 has a human face in relief on one side, while Nos. 13 and 14 have animal figures in high relief. On Plate LXXXI we have arranged the bird-designs. On Plate LXXXII are the animal and fish figures, and we simply call attention to No. 12, which shows two serpents. We have already referred to this specimen in our description of the serpents on the stone seat (see p. 100). Two other spindle-whorls will be found in Nos. 1 and 2, Plate CVIII, which are from the vicinity of Caraques. They are natural size, and are but slightly decorated. They illustrate, however, the shape of many of the whorls from the hill region, although, as was stated in the preliminary report, some are bead-shaped. On Plate CXIV are the elongated spindle-whorls from the Island of Puna, which will be described later. We have a few spindle-whorls from Esmeraldas, but they are all simple whorls and different in shape from those of Manabi. They have no incised designs. In the very large collection of whorls from the vicinity of the hills, we have only one specimen which is identical with those from Esmeraldas.

We quote here from our paper on our researches along the Esmeraldas coast, published in the "Proceedings" of the International Congress of Americanists in Vienna, as follows: "Another point of difference between Esmeraldas and Manabi is the comparative rarity of spindle-whorls in Esmeraldas, while they are found in great numbers in Manabi. This would seem to indicate that the people of the southern province were much more accustomed to weave fabrics than those of Esmeraldas. The Spaniards state that from Coaque and other places in Manabi they obtained great quantities of woven fabrics and cloths, which were very highly esteemed by them. Unfortunately, all traces of textile have disappeared, except in a certain technique seen in the carvings and in some of the figures, apparently imposed by the influence of textile art. Nothing of this phase of culture remains. Undoubtedly,

the two provinces were inhabited for a long time simultaneously, and it may have been that the people of Esmeraldas obtained their clothing and various garments from Manabi. Probably the greater number of tiny jewels which we have found, were attached in some way to their clothing, for decoration. There is a possibility that they employed bark-cloth for garments, and in that case the golden jewels would have been attached by gum."[86]

WHISTLES. A fairly representative series of pottery whistles is illustrated on Plates XLIX and L of the preliminary report. We stated that nearly all of these were from Cerro de Hojas, as we obtained them by purchase in La Tolita. Possibly they might have come from either Cerro de Hojas or Cerro Jaboncillo. Two of the specimens were from other localities, one being from the vicinity of Cape Santa Elena, and the other from Bahia de Caraques. From our excavations in Cerro Jaboncillo we secured a new series of whistles, either fragmentary or broken; and a selection from these will be found illustrated on Plates LXXXIII to LXXXV inclusive of this volume. Those in the preliminary report are largely animal figures or other forms; but those in the present series are nearly all human figures. The whistles illustrated on Plates LXXXIII and LXXXIV are mostly all drawn three-quarters natural size. They are chiefly interesting on account of the different types of faces and costumes, and should be compared also with the human figures and heads, which are not whistles, given on Plates XCI to XCV inclusive. Resemblances will be found between the heads of the human figures of this series of whistles and other human heads published in both reports.

No. 1 of Plate LXXXIII represents a seated human figure, the mouth-piece being at the top of the head and the whistle at the lower part of the body, in front. It has a perforation for suspension. This is the only whistle of human-figure form which has this feature; but No. 7 (the grotesque figure) and No. 9 (the bird figure), on Plate LXXXIV, have small holes for suspension. Studying the entire group of whistles illustrated in both reports, we find that they may be divided into several classes, according to the position and character of the mouth-piece; some having two mouth-pieces, while others are

double whistles with a single mouth-piece. We find a few examples with two mouth-pieces and two whistles. The majority, however, have only a single mouth-piece and whistle. No. 1 of Plate LXXXIII, which we have already described, is of the simplest type, having a single mouth-piece in the top of the head and a single whistle; while in No. 2, which is also of the simplest type, the mouth-piece forms a tubular extension on the back, placed well toward the lower part of the body. Of Plate LXXXIII, No. 3 has the single mouth-piece and whistle in the head. No. 4 is like No. 2, which has a pipe-like extension to the back; Nos. 8 and 9 are of like character; and No. 7 has the single whistle in the top of the head, as in Nos. 3 and 5. All of these specimens just noted, and, in fact, all on Plate LXXXIII, with the exception of No. 5, are practically solid figures; but No. 5, which is broken, is a hollow figure, the flattened mouth-piece being near the top of the head, at the back. The lower part of the figure is missing, and there the vent-holes must have been. The fragmentary whistle (No. 4 of Plate LXXXIV), showing an extremely conventional head, has the whistles in the head, as in the examples heretofore described. On the same plate, Nos. 8 and 10, standing animal figures, have the whistles as in Nos. 2, 8, and 9, Plate LXXXIII.

The standing human figure (No. 6, Plate LXXXIII) is complete. It has two mouth-holes and two whistles; the mouth-holes being at the top of the head, and the whistle extending downward as far as the neck. Nos. 2 and 3 of Plate LXXXIV are of this same type, and the two mouth-holes will be seen in the top of the head. No. 2 was found in Papagayo, and is interesting for the rude human face, almost simian-like, with a broad band over the forehead. No. 3 is one of the most noteworthy heads secured in Manabi. A rosette is found on each side of the head; and the line over the forehead and down to the ears, showing the cutting of the hair, is unique. The face is very narrow and angular. The heads of whistles shown in Nos. 5 and 6 are of interest. No. 5 was found in Mound 1, and represents the head of a monkey with the right hand placed against the side of the head. The incised design on the forehead is of a somewhat similar character to that on the potsherd from Manta, illustrated in Fig. 9, p. 75, of the preliminary report. We shall refer to this fragmentary whistle when describing the

large figure, No. 8, Plate XCIV. No. 6 was found in Mound 3, and is practically identical in ware and design with the whistle (No. 9 of Plate CX) which was found in the town of Caraques; the only difference being that the Caraques specimen has painted designs on the face and body. The three specimens shown in Nos. 7, 9, and 11, are whistles. They are simply to be blown into as one would blow into the end of a tube. The tone of the very peculiar whistle, No. 11, may be changed by placing the finger over the open hole at the end of the figure, the mouth-piece being at the top between the two parallel ridges running at right angles to the body of the animal.

The most important specimen of the whistle type is illustrated on Plate LXXXV, showing front, side, and back views. It was found with skeleton 14 in Mound 3. This unique specimen, 10 inches (25.4 cm.) high, represents a human figure; the body, between the neck and the knees, being covered with incised designs. There are traces of brown-color. A geometric band is over the forehead, and a necklace around the neck. The ears have long ear-ornaments, and in the lobe of each ear are two perforations, possibly for the insertion of gold rings for decorative purposes. The ware is of a dull-orange color, thickly mottled with brown spots. The mouth of the whistle is in the upper part of the flattened, elongated head, representing artificial deformation, and there are two whistles, the vent-holes being seen at the upper part of the back of each arm. The head of the broken whistle shown in No. 6 of Plate LXXXIV was probably of this type; and the whistle in No. 9, Plate CX, from Caraques (to which we have already referred), also has two whistles with the one mouth-piece. We have numerous fragments of this same incised ware. On this same plate, the drawings Nos. 6 and 7 show a front and back view of a whistle of the same character, from Cojimies. We thus have this type of whistle extending from Cerro Jaboncillo to the Esmeraldas frontier, but all of a different ware. The closest resemblance between the specimens which we have just noted is between the large whistle on Plate LXXXV and the Caraques specimen, No. 9, Plate CX. The incised decoration, as well as the color of the ware, of the large specimen under consideration, to be seen on Plate LXXXV, is identical in character with that of other figures from Cerro Jaboncillo which are not

whistles, and we shall refer again to this point when describing these figures. Generally speaking, there are not very close resemblances between the whistles of Manabi and those of the province of Esmeraldas. We have a much larger series for study from Esmeraldas, especially from La Tolita, and the ware and general motifs are quite different from those which we have just described. In some instances there is a slight resemblance between the heads of these whistles and the pottery heads from the valley of Mexico, but such resemblances have no significance. So far as we know at present, the musical instruments illustrated by these whistles of Manabi are of quite a local type.

HUMAN FIGURES. Excluding the stone seats and bas-reliefs from consideration, the most important and unique objects found in Manabi are the pottery human figures sitting on seats, shown on Plates LXXXVI to LXXXVIII. We have referred to several of these specimens in the section on stone seats, and in Nos. 11 and 20 of Plate II we have given outline drawings of two of the seats without the figures. In these figures, different types of seats are shown. The seat on Plate LXXXVI is identical with the stone seats from the hills. The entire figure, which was found in the south-central portion of Mound 2 (see plan of Mound 2, p. 37), is 14¾ inches (37.5 cm.) high. On the plate, front, side, and back views are shown. The right arm is missing, the left is bent, the wrist resting on the knee. By referring to the seated figures on Plate LXXXVII and LXXXVIII, we see that the position of the arms in these four examples is practically the same; hence it is probable that the right hand held a tube or other object, while the left possibly had a bag or cloth extending from the wrist, which contained some object, perhaps a bird. The figure indicates a man, the loin-cloth being represented around the waist by three rudely incised parallel lines, and a cloth is figured going down between the legs. A small cape extends around the neck to the shoulders on all sides of the body. It is decorated with a series of parallel lines separating a row of five dots. Around the legs, well below the knees, are bosses indicating some kind of leg-ornament. The head is not very well modelled; the eyes are exceedingly conventionalized, as well as the mouth. The nose is aquiline, and the broad ears are perforated at the upper part for some

ornament. On the left cheek we see a small protuberance, possibly indicating a quid of coca, as it does not resemble an ornament. The head is covered by a rounded cap decorated with bosses, with a face in the front part and a curious horn-like object on each side. There can be no doubt that this head-covering represents a gold cup-like crown, identical in many respects with similar head-coverings from the Cauca Valley in Colombia. We are also strongly reminded of gold head-pieces from the vicinity of Cuenca in Ecuador. Huezey has illustrated one of these gold caps, and we note, on one side of the specimens which he figures,[87] the same visor-like extension that may be seen on the Manabi specimen.

The figure is massive, but generally well modelled, and is of light-brown ware without polish. It is hollow, and there is a small perforation in the middle of the back and on the top of the head. This was the first specimen of human figures on seats which we found. As the support of the seat is entirely plain,—like the support of the stone seat Nos. 3 and 4 of Plate XLI, which it resembles,—it seems to us conclusive, as we have heretofore stated in treating of the stone seats, that they were used primarily as seats. This is the only figure supported on a seat of the type of the stone seats. All of the other figures are on seats of varying character, undoubtedly representing various kinds of wooden seats. With a single exception, all of the other seated human figures are vessels. Nos. 1 and 2 of Plate LXXXVII are views of a very interesting specimen. It is roughly modelled, and traces of a smoothing-instrument for cutting down the same are plainly visible. The figure has been painted a dull-orange color, and there are traces of green paint on the side of the seat, on the high, stock-like band around the neck, and on the objects held in the hands. This figure, which is 10 inches (25.4 cm.) high, was found with skeleton 18 in Mound 3. The seat is illustrated in outline No. 11, Plate II. The entire figure is hollow, the opening being at the top of the head. The figure is bent forward, the elbows resting on the knees. Hanging from the left wrist is a bag. The hands are raised upwards; the right hand containing what was evidently intended to represent a copper axe, the left hand grasping an object so indistinctly represented as to be unrecognizable. It is somewhat rounded, with a perforation in the top, and might represent a shell or a ball. The figure is nude, except for a

loin-cloth around the waist and the band referred to around the neck. The mouth is small, and ornaments are represented in the nose and ears. There is a band around the forehead.

The next seated figure to be described is Nos. 3 and 4 of Plate LXXXVII, and in some respects this is the most important of any of this series. It is 11¾ inches (29.9 cm.) high, and was found with skeleton 21 in Mound 3. The seat on which this figure rests has been given in outline in No. 20, Plate II. The workmanship of the whole figure is very crude, the ware being a dull-brown color mottled with black. The limbs are out of proportion to each other, the arms being very small, and the legs very large. The head is much too small for the body. The feet are missing. The figure is clothed with a loin-cloth, and a band is represented around the neck. Large ear-ornaments and a nose-ring are shown. The body of the figure is a vessel, the opening being at the top of the back. As in the figure just described, the body is bent forward, the elbows resting on the knees; and a bag hangs from the left wrist. In the left hand is a bird, and the right hand grasps a tube which rests on the back of the bird, the upper end of the tube being slightly below the man's mouth. The whole figure unquestionably represents sorcery, exorcism, or some shamanistic ceremony, and probably all of these seated figures may be interpreted in like manner. In this connection we are reminded of the statement of Cobo regarding the sorcerers of Peru. He informs us, in his chapter on the subject, that they used to kill birds, and, "blowing through a certain vein of the lungs," made their divinations. Molina also writes that a class of sorcerers, called "Calparicu," killed birds, "and, inflating the lungs through a certain vein, they discerned certain signs, by which they declared what was about to happen."[88]

In Nos. 1 and 2 of Plate LXXXVIII, we have another human figure on a seat. It is 7 inches (17.8 cm.) high, and was found with skeleton 23 in Mound 3. This is the best ware of any of the figures of the group. The color is a light shade of brown, and polished, the head being of a lighter brown. The seat, loin-cloth, lower ring around the neck, bands around the lower parts of the legs, and the objects held in the left hand, are painted red; while the three-strand necklace and the ear-ornaments are painted green. Around the forehead is a band,

probably representing a rope. The whole figure is a vessel, the mouth being at the top of the head. The seat probably represents a wooden one, but the front support is not given. An interesting feature is the broad, flat heels, which have almost the same extension as the toes. This feature we have pointed out before, in connection with the human figures represented on the bas-reliefs. As in the figures just described, there was formerly a bag hanging from the left wrist, but only the strap remains, the bag itself being broken off. In the left hand is an object, probably a conus shell, with a perforation on the top. In the right hand is an object like a pointed instrument; but the upper part is missing, so that it is impossible to determine just what kind of implement was represented.

The last figure of this group, shown in Nos. 3 and 4 of Plate LXXXVIII, is quite different from the others of the series. It belongs to the same class of ware to which we have already called attention in describing the whistle on Plate LXXXV. It is of an orange-red mottled ware, well smoothed and polished. The characteristic feature of the figure is the incised decoration. This is found on the right leg, the arms, around the neck, and over the forehead, but, unlike other figures of this ware, does not appear on the back. The figure, which is hollow and has an opening at the top of the head, rests on a seat. This seat is merely two parallel, upright supports resting on a broad, flat pedestal, the seat itself being but slightly indicated. It is of the type of seat shown in No. 4 of Plate LXXXVII. The loin-cloth, extending between the legs, is painted red. As we have before stated, a necklace is represented by incised lines, forming a geometric pattern, and an incised band of geometric patterns also appears over the forehead. Tiny ear-bobs and a nose-ornament are represented. A very interesting feature, and one upon which we shall dwell at greater length when describing the figure from Caraques (shown on Plate CIII), will be seen in the side view of No. 4. This feature is found also on the other side of the head, and in both cases is painted red. The arms are bent; the left elbow resting on the leg, while the right elbow is free from the body. As in the other figures, a bag hangs from the left wrist. The right hand contains an object difficult to determine, but it is probably a small bird. The object in the other hand is broken off at each end, so that

identification is impossible. All of these four seated figures just described have the bag hanging from the left arm, and there is no question but that the first figure shown on Plate LXXXVI had the same paraphernalia. In this connection we would call attention to the bas-reliefs shown in outline in Nos. 1 and 2 of Plate V, where we find a standing human figure with loin-cloth and birds below, opposite the legs. In these pottery figures we have the figures with loin-cloths, bags, and, in two instances, birds; while in the other two figures they probably have shells. This strengthens our assumption that the two standing figures of the bas-reliefs with loin-cloths are unquestionably males, and we find the same association of a bag and birds in the bas-reliefs and in these pottery figures. Hence it is probable that there is a connection between the two classes of objects.

We obtained quite a number of fragments of broken figures which probably belong to the class just described. The only one which we could at all restore is shown in No. 6, Plate LXXXIX. It was found in Mound 2, and is 12¼ inches (32.1 cm.) high. It is a solid figure. The seat is missing, as well as the left arm below the elbow, which rests on the knee. The right arm is raised, and the hand is quite near the mouth.

It is highly probable that the fragmentary figures shown in Nos. 2 to 5 inclusive of Plate XC belong to the group of seated figures, as well as the heads Nos. 1, 3, 4, 5, and 7 of Plate XCI, and No. 5 of Plate XCII. The heads are approximately of the same size as the heads of the seated figures; but they have no opening to show that they were vessels, as is the case with the three figures found on Plates LXXXVII and LXXXVIII. The very interesting fragment, Nos. 2 and 3, Plate XC, was found in Mound 3, and is 6½ inches (16.5 cm.) high. The features of this specimen are quite well modelled, and the head is covered with a crown-like cap, probably representing a gold head-piece. The front part is characterized by two button-like objects separated by a ridge, and there is a possibility that a conventionalized owl's head is represented. The most striking feature of this figure is the very slender body, and on the back there is a stub of some projection which rose at an angle of forty-five degrees from the body. The garment is quite unique. The other figure (Nos. 4 and 5 of Plate

XC) was found in corral 17, quite near the surface, and although a diligent search was made for other pieces, this was all that was found. The fragment is 7¼ inches (19.8 cm.) high. This is the only one of the figures which has no trace of a garment, not even a neckband around the neck. Unlike the other figures, indications of breasts are shown, there being a possibility that this is a female figure. The figure is hollow, with small openings into the head in front of the ears. The head of this figure is quite unlike any other head found in the province, and more nearly approaches a true portrait than any heads from the entire coast of Ecuador, until we reach the Island of La Tolita in Esmeraldas. It is unfortunate that the nose is broken; but the treatment of the eyes is quite realistic, and the teeth are shown. The ears, which are broken, formerly had ear-bobs. The representation of the hair is also unique. It is apparently intended to show that certain portions had been shaved off, leaving a circular patch on the top of the head, separated by a slight line from a wig-like arrangement of the hair, extending down over the back of the head below the neck. The general finish and modelling of the figure place it among the best pieces of work in clay in the whole collection from Manabi, if it is not the very finest.

The heads to which we have referred as probably being parts of seated figures are all of quite distinctive types. No. 1 of Plate XCI is hollow, and the nose and eyes are nearly obliterated, the specimen being much weather-worn. This is one of those rare examples in which teeth are shown. There is a band of geometric patterns over the forehead in relief; and on the left side of the head is an ornament of the same character as that mentioned on the seated figure (No. 4 of Plate LXXXVIII) and the Caraques specimen on Plate CIII. This head is 3 inches (7.6 cm.) high. No. 3 of Plate XCI is a solid head considerably flattened, showing artificial deformation. The head appears as if covered with a cap coming down over the forehead and down behind to the neck. The nose in this specimen is battered, but the general finish of the clay is quite similar to that of No. 4 of Plate XC.

No. 4 of Plate XCI is a specimen of very great interest. It is solid and of a clay quite different from any of the others. The way in which the eyes are represented gives the face the appearance of a

person sleeping. The nose, which is strongly aquiline, is one of the best modelled of any in the collection, and a massive nose-ornament is represented. A broad band covers the forehead and top of the head. No. 5 is a head which has a peculiar treatment of the eyes; the face has nose and ear ornaments, and there is a perforation on the top of the hollow head. From the position of the neck it is apparent that this head once formed part of a vessel analogous to No. 4 of Plate LXXXVII. No. 7 is a solid head, the principal feature being the ball-like nose-ornament. As will be seen by the illustration, the upper part of the head is missing and the ears are broken.

Another head which we may reasonably include in this group of figures is No. 5, Plate XCII. It is one of the most extraordinary heads in the collection, and is battered and broken, but enough remains to give an idea of its character. It is of the same size as the head of the seated figure on Plate LXXXVI, but is of an entirely different clay and general appearance, with one exception, which we shall note later. It is hollow, and in places the brown clay has been burnt a bright-red color. The top of the head is somewhat pointed, and contained an ornament, which, in its battered condition, it is impossible to recognize. Around the head is a broad band formed by very regular parallel lines, and the ears have ornaments which recall the gold ornaments of Colombia. In fact, there can be no doubt but that gold ornaments are represented of the same character as those from the Cauca Valley of Colombia. A feature similar to that found on the face of the large figure on the seat shown in Plate LXXXVI, is the protuberance found on the right cheek. The general aspect of this face is very different from any of the other heads from the Ecuadorian coast, and at first glance suggests a Spanish face; but the various points to which we have called attention indicate that it is an aboriginal face. In all respects it is the most interesting head from Manabi.

All the other human heads shown on Plates XCI to XCIV have some features of interest, and nearly all are pieces of figures, many of them, probably, being parts of whistles. They have been arranged as nearly as possible according to different types, and for bringing out various points of decoration. No. 2 of Plate XCI is characterized by an enormous nose, the lower part being broken off, but showing that it

was perforated, evidently to contain a gold ring, like many figures found in Colombia. The series on Plate XCII has been arranged to show ear, nose, and lip ornaments. We already have described No. 5, and called attention to the Colombian type of ear-ornaments found on it. The three specimens on the lower part of the plate are from the rims or necks of vessels. Nos. 7 and 8 are of polished grayish-brown ware, and their noteworthy features are the pointed chins, and the curious punctured ear-ornaments. No. 9 also shows this feature, but it is of a different clay. We have many fragments of heads of this character, but these are sufficient to serve as types. No. 3, which is a very much battered head, shows on the right cheek the protuberance to which we have already called attention. The head found in No. 2 is of a brownish-black polished ware, and is introduced to call attention to the treatment of the hair, somewhat like that on Nos. 4 and 5 of Plate XC, which we have already described. The two most important heads are Nos. 1 and 4 of Plate XCII. No. 1 is solid, and quite well preserved, but the ears are missing. Below the large mouth is an irregular, button-shaped ornament, undoubtedly a labret. This ornament is also found in the beautifully modelled head illustrated in No. 4, which, unfortunately, is only a fragment. The features are very well modelled, and the nose is aquiline. The point, however, to which we wish to call attention, is the ornament on the front of the chin. It is a small ball surrounded by seven smaller balls, forming a rosette. It is identical with the small gold ornaments from Esmeraldas, of which we have hundreds in our collection. These little gold ornaments are bent, and were unquestionably face-ornaments, which were set in holes in the face for decoration. On this subject we refer to the abstract we have published on the archeology of Esmeraldas.[89]

The last specimen on this plate (No. 6) is part of the handle of an olla, or a decoration which was placed on a vessel in the form of a handle, as both the upper and lower parts are finished, and each side shows a break. This conventionalized face has a boss on each side of the mouth, and two over the nose. The bosses on the mouth were evidently ornaments.

On Plate XCIII are a number of heads of various types which we need not describe in detail. They should be studied in connection

with the heads on Plates LII and LIII of the preliminary report. We shall call attention to only one or two features. No. 4, which is very much disintegrated, was probably a whistle. The arms of the figure are folded, and the chin rests upon them. It reminds us of Esmeraldas figures. No. 5 also reminds us of Esmeraldas figures, showing superimposed animal heads. No. 6 is a complete little head, evidently in the condition in which it was taken out of a mould. No. 7 is also of the same class, but the back is hollow, and on the top is a little series of holes to receive cords or tiny feathers. This specimen is evidently a small mask.

On Plate XCIV are a number of human figures more or less broken. The specimen of greatest interest is figure No. 8 of this plate. This extraordinary figure was found in Mound 2, and is by far the best modelled of any of the figures which we have seen in the province. It represents a human figure with the head of a monkey. It is entirely nude, with the exception of a small cape around the neck and a mask with a cleft forehead on the right shoulder. It is hollow; but there are only two small openings, one being in the middle of the back, and the other on the back of the head. The only ear which remains is the left one, which has two perforations, and there is one through the large nose. The left hand is grasping the forehead. *Dextra manus membrum virile tenens abusum sui repraesentare videtur.* This is the only object from Ecuador at all approaching the pottery objects of erotic character from Peru. It is of the same kind of ware as the large figure on Plate LXXXVI, and possibly was made by the same artist. As we have stated, no other figure is so well modelled. The curious combination of the human figure with the simian head is found in the broken whistle (No. 5, Plate LXXXIV) which we have already described, and there is a strong probability that this fragmentary whistle was of the same character as the figure just under consideration. On Plate XCIV we have brought together a number of specimens which are difficult to classify, and we shall not enter into any general description of them, but let the illustrations speak for themselves. Two of them are characteristic of quite a number of specimens which we found in our excavations. Nos. 7 and 8 are portions of figures; the legs, arms, and head being missing. No. 7 has a representation of a scorpion cov-

ering the chest, between the necklace and the abdomen. Unfortunately, No. 2 lacks the head, but it is a fine polished black-ware, and represents a standing figure with the hands placed on the chest. The interest of the figure centres in the animal with a long tail, which is on the back of the figure. From the two perforations on the side and one in the centre, it is probable that it is part of a whistle; and the heads, Nos. 3 and 4, are also parts of whistles. No. 1 is a large, grotesque head much battered. It has a curious decoration over the top. No. 6 is a handle-shaped, highly conventionalized face. Nos. 10 and 11 are strongly conventionalized figures, and we have numerous fragments of figures of this character.

We shall now return to the specimens which we have not described on Plates LXXXIX and XC. No. 3 is a fragment of a hollow human figure with the opening at the top of the head. It is 5 inches (12.3 cm.) high, and was found in Mound 3. The entire torso is missing, but the peculiarity of this fragment is in the fact that the arms end in points, and not in hands. It is the only example of this conventionalization of the human arm which we have seen in Manabi. The ears have each two perforations for ornaments; and the nose, which is large and aquiline, also has a perforation. Over the forehead is a geometric pattern, which is on a cap-like covering with serrated edge extending over the back of the head to the neck, in somewhat the same fashion as the arrangement on the back of the head of figure No. 5 of Plate XC.

An interesting figure which we illustrate in No. 5, Plate LXXXIX, apparently belongs to the group of the figures on seats; but in this instance the figure is placed against the seat, and not upon it, the legs being straight. The seat itself is like that shown in the seated figure, No. 2 of Plate LXXXVIII. The head of this interesting figure is missing. The body is clothed with a loin-cloth, with a broad, flat piece hanging down as far as the knees. The figure is hollow, and, in the absence of the head, it is impossible to state definitely whether this is a vessel or a figure. It is probably a vessel, the opening having been in the head, which is missing. It is of incised ware, of the same general character as the whistle on Plate LXXXV and several other specimens which we have described, notably the seated figure in Nos. 3

and 4 of Plate LXXXVIII. The fragment is 7¾ inches (19.8 cm.) high, and was found in Mound 3, where the other specimens of this kind of incised pottery were discovered.

Another example of the incised ware will be found in No. 4 of Plate LXXXIX. It is one of the very interesting specimens of our collection, being a human figure with the seat of the same character as that described in the preceding specimen, the front part being absent. The figure is a vessel, with the opening in the top of the head. The important feature of this specimen, however, is the wing-like extensions back of the arms. From the loin-cloth, it is seen that a male figure is represented playing pan-pipes, this figure being one of several illustrated in this monograph showing the use of this type of musical instrument on the Ecuadorian coast. We find very many small figures from Esmeraldas playing the pan-pipes.

The cup shown in No. 2, Plate LXXXIX, is a vessel of rude, dark-brown ware rather crudely modelled. On one side is a standing human figure placed against the side of the vessel, with the head missing. The hands are resting on the abdomen, just above a loin-cloth. The distinguishing feature of the figure is a shirt-like garment extending below the neck, which bears a large disc with a small raised boss in the centre, recalling the copper discs. It is possible that discs of either gold or copper were worn on the breast. The vessel was found in Mound 2, and is 4¼ inches (10.9 cm.) high.

The curious vessel shown in No. 1 of Plate LXXXIX, is a representation of an olla-shaped vessel intended, probably, for a frog, but very crudely modelled. This was found with skeleton 23, Mound 3, and is 7 inches (17.8 cm.) high. In the headless human figure shown in No. 1, Plate XC, we have a fragment of a most interesting specimen. It is a human figure standing on the back of a crouching animal, the head of which is missing. The animal is placed upon a high, flaring base, but, unfortunately, the lower edges are broken off, so that it is impossible to determine exactly the shape of this pedestal. The shirt-like garment has the head of an animal in relief. It was found in corral 47, and is 6¾ inches (7.3 cm.) high. We have another figure of a man standing on the back of an animal (see No. 5, Plate CIV), which will be described later.

We have brought together on the lower part of Plate XC four vessels of different shapes. The specimen illustrated in Nos. 6 and 7 was found in the jar from Mound 1, the finding of which has been described in the section relating to excavations. This little human figure is $6\frac{3}{4}$ inches (7.3 cm.) high, and the entire left side of the body is decorated with incised lines. The opening of the vessel is in the top of the cylinder-like head, and there is an aperture through the genital member, through which a liquid would pass out of the vessel. We have another vessel,—of an entirely different ware, and quite different in general character,—with this same feature, from the vicinity of Latacunga, province of Leon, in the interior of Ecuador. Another vessel (see No. 8, Plate XC) represents an animal, with a head resembling that of a turtle, bearing a high cup on its back. It is $7\frac{1}{4}$ inches (19.8 cm.) high, and was found with skeleton 19 in Mound 3. The other two vessels of animal form, possibly representing a puma, are Nos. 9 and 10 of Plate XC. They were found close together with skeleton 21 in Mound 3. No. 9 is of an orange-colored ware, and the vessel, which is of tubular form, on the back of the animal, is not so high as No. 10. It is 6 inches (15.2 cm.) high. The other animal-shaped vessel, No. 10, is of a highly polished black-ware, and, as will be seen, the vessel top extends considerably above the head of the animal. It is $6\frac{3}{4}$ inches (17.3 cm.) high. These two unique vessels are the only examples of this class which we have seen along the coast.

This closes our description of human figures, and, as we have already stated, some of these figures are vessels, while some are merely effigies.

CLOTHING AND PERSONAL ORNAMENTS. As most of the human figures in our collection are nude, we can say but little regarding the clothing worn by the ancient people of Manabi. That capes, tunic-shaped garments, and loin-cloths were used, is evident from some of the pottery figures, and from the human figures, both male and female, found on the seats and bas-reliefs. There can be no doubt that the textile art was considerably advanced in this section of South America. This is shown by the enormous number of spindle-whorls from the vicinity of the hills. Oviedo, in speaking of the region near

the equator, says that "the Indians wear short shirts or chemisettes which do not cover their private parts; the women wear skirts or cloths below the waist, as in Castilla del Oro." He repeats the same statement concerning the costumes of the people of Puerto Viejo. In the first account of the discovery of the northwestern coast of South America by Francisco Pizarro and Diego de Almagro, in treating of the region from Atacames to Calango, it is stated that they made cloths of wool and cotton, which are described as being richly worked in scarlet, crimson, blue, yellow, and other colors, with figures of birds, animals, fishes, and trees, in the form of blankets, shirts, and *aljubas*, a kind of Moorish garment formerly worn by Christians in Spain. The mantas made by the modern Cayapa, which are beautifully woven in various colors, and with designs of animals, birds, and other objects, may possibly be of the same character as the textiles found by the first Spanish conquerors. Cieza de Leon remarks that "both men and women wear mantas and shirts of cotton, and sometimes of wool." Benzoni, who in 1546 visited the chief of a town called Colonchi, near Cape Santa Elena, says that he was dressed in a shirt without sleeves, dyed red.

The most curious notice which we have found concerning clothing probably worn in Manabi, or at all events made there, is given us by Father Bernabe Cobo in his "Historia del Nuevo Mundo," in Vol. 3, p. 286. It is contained in a chapter devoted to a description of the dress of the Incas, and contains an interesting item bearing on the materials obtained in Manabi for royal garments. He writes: "They change their garments very often, and never wear again a garment, once it has been laid aside, particularly if there falls on it any kind of a spot, although it may be very small. It happened to Atauhualpa, when he was imprisoned by the Spaniards in Caxamarca, that one day he was eating in the presence of the Spaniards who were his guards, and, carrying a morsel of food to his mouth, there fell a drop on the garment which he had on, and, giving his hand to the servant who had the plate, he rose from the table and went to his room to change his garment, and came out with a shirt and manta of dark gray. A Spaniard, when he reached him, touched the garment, and finding it very soft, like that of silk, asked him of what the garment was made. The Inca responded

that it was of birds which fly in the night in Puerto Viejo and Tumbez, and that they hit people; and when they came to another, he said it was of the skins of bats. The Spaniard asking where it was possible to bring together so many bats, Atauhualpa responded with these words: 'Those dogs of Tumbez and Puerto Viejo, what else have they to do except to take these birds to make clothing for my father Guaynacapac?'"

The pottery figures give ample evidence of the various kinds of ornaments worn by the ancient people. We have shown, in describing the figure on Plate LXXXVI, that gold head-pieces were worn; and in other pottery figures we have called attention to the representation of the ear, nose, lip, and cheek ornaments, undoubtedly of gold. Necklaces, and wrist and leg bands, were worn, which were possibly of gold, but also of shell and stone beads. We also found, in connection with the skeletons, rings of gold, and copper overlaid with gold, which might have been used on the fingers, as well as inserted in the nose or ears. We have the statements of the early writers, that emeralds were extensively used for ornaments, as well as for idols; but, although we did not succeed in finding them, we have no doubt that emeralds were in the possession of the Indians at the time of the Spanish Conquest.

ANIMAL FIGURES. We found many small animal figures in our excavations, but illustrate only a few, on Plates XCVI and XCVII. These should be studied in connection with the few heads illustrated on Plate LV of the preliminary report, with the four vessels of animal form which we have just described, and with the drawings of animal figures on the spindle-whorls which we give in both reports. They should be compared, also, with the few animal figures from the region of Caraques and northward, which are given on the plates at the end of this monograph. A number of animal figures are also found in the whistles. We shall not enter into any detailed discussion regarding the animal heads on Plate XCVI, or attempt an identification of them. No. 1 represents a coiled snake of light-brown, very friable ware. The head is missing. We have already stated that serpents are rarely represented in the art of Manabi. With the exception of this specimen and the broken snake's head in No. 2 of this plate, we have, in the

entire collection of illustrated fragments, but one other example of a snake, in which a small portion of the left arm of a human figure of some size is shown grasping by the hand the head of the snake at the back of the neck, the body of the snake apparently rising up over the shoulder of the figure, and possibly twined around the neck. The head shown in No. 5 is part of the wall of a vessel; but the other examples are all parts of figures, the only complete examples being Nos. 4 and 11.

On Plate XCVII we have brought together various examples of birds and fishes. Nos. 1 to 5 are complete. The most curious is No. 4, which is conical; and No. 2 also resembles somewhat a spindle-whorl. In fact, these two specimens appear somewhat like stamps, but they bear no patterns on the bottom. The best representation of a bird is No. 7; the wings, as well as the tail, being pictured in quite a realistic manner. The little specimen No. 8 was probably a frog. No. 10 is a complete fish made of light-brown clay, and, with six others, was found in a deposit with skeleton 13, Mound 3. All are of the same size, but apparently were not made in a mould, as the details of the incised lines and the general shape vary slightly in each specimen. All have a very small perforation for suspension, and average about $2\frac{1}{2}$ inches (6.3 cm.) long.

These more or less fragmentary heads in the two plates are nearly all of approximately natural size. They were, as we have said, selected from a considerable series, but they represent about all the different types which it is necessary for us to illustrate. There is no approach in this series to the great number and variety of representation of animals found in the pottery figures of Esmeraldas.

The consideration of these animal figures brings us to a point of importance in our consideration of the ceramic art of Manabi; namely, that, while we find in the pottery vessels of Peru an infinite variety of animal figures, in the vessels of Manabi, with the exception of the four vessels which we have illustrated, this variety is almost entirely absent. The almost entire absence of animals forms in ollas and vessels from the interior districts of Ecuador is also noteworthy, this feature being one of the great points of difference between the culture of Peru and that of the region to the north.

GRATERS. We illustrated in No. 6, Plate LXXIII, a large vessel with an almost flat, circular plate, which was designed to be used as a grater. On Plate XCVIII we have brought together a number of fragments of graters from various parts of the Ecuadorian coast. In our excavations in Cerro Jaboncillo we found, aside from the complete hourglass-shaped vessel, fragments of graters of different kinds. Nos. 1 and 2 are of one type. They are shards of large, thin plates. From the shape, it is impossible to determine whether they were circular or oval, but it seems highly probable that they were oval. They are characterized by ridges such as would be made by drawing the finger through the clay when in a plastic state, leaving in places the imprint of the skin, which may still be seen. They are very thin, and have a slight outer rim. In a general way, the rough, unfinished under surface reminds us of the *comalli*, the griddle of ancient Mexico, of which we found many examples in Zapotecan tombs in the valley of Oaxaca. If these fragments under consideration were graters, they could only have been used for very soft substances, owing to their fragile character. The other specimens on Plate XCVIII are of a quite different character, the rough surface for grating being produced in all cases by punctures.

Fragment No. 3 was found by Dorsey on the Island of La Plata. He writes that it is "a small fragment of the edge or rim of what must have been a very large vessel. This is decorated with numerous rows of parallel punctures made with a sharp instrument."[90] There can be no doubt that this is part of a grater, possibly of the character of the large vessel (No. 6, Plate LXXIII). Of the same type, and undoubtedly fragments of a vessel of this kind, are Nos. 8, 9, and 10 of the same plate. No. 8 is from Caraques, and shows the curving to the edge. The fragment is 4 inches (10.2 cm.) long, 2½ inches (6.3 cm.) high, and ½ inch (1.3 cm.) thick. No. 10 is also from Caraques, and is practically identical in character with the upper surface of the large vessel from Cerro Jaboncillo. No. 9 is a small fragment much weather-worn, and undoubtedly was found on the beach near Caraques. No. 7 is also much weather-worn, and was found on the beach near Canoa. It is of a quite different character from the others, having been a flat, slab-like grater. The fragment is 3 inches (7.6 cm.) long, 2½ inches (6.3 cm.) wide, and ½ inch (1.3 cm.) thick; it is of a coarse brown clay. The marks are

produced by punctures. We must refer now to the next specimen which shows this slab-like character. No. 6 was also found on the beach near Canoa, and, as will be seen, there is a border on one side. The fragment is 3¾ inches (9.6 cm.) high, and 3¼ inches (8.3 cm.) wide; the specimen when complete having been, probably, not more than 4 inches (10.2 cm.) in width. In this specimen there are deep punctures regularly made in lines, and alternating with spaces which are not punctures, but which are raised in a semilunar shape from the rasping surface. These edges are now worn down smooth. The punctures have been made deep and very even, and, looking at the section, one sees that the incisions extend three-quarters through the slab, ending in a point.

In explanation of the possible shape of these last two fragments, we would call attention to the broken graters from the Island of La Tolita, Esmeraldas, shown in Nos. 4 and 5. Of this type of artifact we have more than a hundred specimens in a more or less fragmentary condition. Some, however, are nearly complete, and show the form of a fish. These specimens will be illustrated and described in detail in our study of the archeology of that province. No. 4 shows the mesh-like impression to which we have already called attention. As will be seen, the sides are not flat, as in the other specimens, but are raised, forming a rim. It is 5 inches (12.3 cm.) long, and 3½ inches (8.9 cm.) wide.

Specimen No. 5 is a fragment showing the head of a fish. It is 4 inches (10.2 cm.) long, and 3½ inches (8.9 cm.) high, and the two series of parallel lines of punctures, which meet in the centre, are almost identical in character with those on the large vessel on Plate LXXIII. We have in our Esmeraldas collection many fragments of graters of this sort, showing the tail-end of the fish, as well as quite a number with small, sharp pieces of stone of a flinty nature set in, often forming designs; thus bringing these graters into relationship with the Manioc graters of Brazil and the Guianas, which are large, broad slabs of wood with bits of stone set in pitch on the surface. Another specimen which we illustrate is No. 11, and, although there is little doubt that it is a grater, it differs from all others from the Ecuadorian coast in that it has punctures on both sides, the reverse and obverse being practically identical. The fragment is 3¼ inches (8.3 cm.) high, 3½ inches (8.9 cm.) wide, and ⅘ of an inch (2.1 cm.) thick. It is from Cape Santa Elena. We do not

recall any graters from the Peruvian or Chilian coast, nor have we any from the interior of Ecuador. There is strong probability that we shall find objects of this character as we continue our researches northward along the Colombian coast and into the interior of that country.

THE REGION FROM CARAQUES TO COJIMIES. We have now finished the detailed description of the objects obtained from the hills, and of the analogous specimens which we have grouped on the plates devoted to the hill collections. We shall now describe material from the region to the north, — from Caraques to Cojimies. Of the conditions which we found in this region, we have treated in the first part of this monograph (see pp. 15 to 31 inclusive), and we need not repeat here our conclusions regarding the archeology of this strip of coast. The material from this region will be found illustrated on Plates XCIX to CX. It is largely the collection of the late Alejandro Santos, which, through the kindness of Mrs. Santos, we are able to include in our study of this region. We have added on Plate CX a single specimen, not properly included there, from Manta, for the reason that we are not able to place it elsewhere.

STONE PUMA URN. As has already been stated, stone sculptures such as seats, bas-reliefs, and columns, are not known to exist north of the Chone River; that is to say, in the vicinity of Caraques and to the northward, we found none of the characteristic sculptures of the hills. We have been fortunate, however, in securing, for description and illustration, in the Santos Collection a most important example of stone-work from the vicinity of Caraques. On Plate XCIX we give a top and side view of this remarkable specimen. It is a puma urn made of a dark, mottled serpentine, almost black in color. It is really a stone box, this box or chest forming the body of the animal. At one end is the head of a puma-like animal somewhat resembling a head of the same material, which we obtained in the region of the Puruhas, near Riobamba. There are deep cuts through the lines representing the teeth of the wide opened mouth. These cuts are oval, and there are three, one on the front and one on each side, which meet. Probably, some metal or other object was introduced for

decoration. In a general way the sculpture of the head reminds us of puma-heads from the vicinity of Tialiuanaco and of Lake Titicaca, Bolivia. We have, however, carefully examined illustrations of puma-heads from the Bolivian region, and find a considerable difference in the technique of the carving. The long coiled tail, the tip of which is broken off, possibly served as a handle, though, unless the vessel were held in both hands, its great weight would militate against this assumption. The box rests upon four low feet, which are the feet of the animal. On each side of the box, and extending on the front and back walls, the curved legs of the animal are conventionally represented. Inside of the receptacle are traces of a dull-red pigment or stain. This is the only object of this material from the coast, and it is one of the most striking specimens that we have yet seen from Ecuador. It is $14\frac{3}{4}$ inches (37.5 cm.) long, and $6\frac{1}{2}$ inches (16.4 cm.) high; the body or urn has a diameter of 6 inches (15.2 cm.); and the cavity is $3\frac{1}{2}$ inches (8.9 cm.) deep.

POTTERY VESSELS. The curious, house-shaped specimen illustrated in Nos. 1 and 2, Plate C, shows the sides and end of a most interesting piece of pottery. It has an extreme height of 5 inches (12.3 cm.), an extreme length at the top of $6\frac{3}{8}$ inches (16.1 cm.), and is $5\frac{3}{4}$ inches (14.6 cm.) wide. The chimney-shaped tube in the curved part of the top, which has the appearance of the roof of a house, is the mouth of the vessel. In No. 1 the vessel proper is seen. It is bottle-shaped, with a flat base, and closely resembles the shape of the tombs found in La Roma. The end of the house-like covering shows a triangular opening at the top, while at the opposite end this upper part is closed, making a rectangular opening below, traces of which are seen at the back of the olla. If we assume that this represents a house, of which there can be but slight doubt, the upper part of the roof is slightly flat, and bears on each side of the orifice of the vessel three nodes inclosed by circular lines. In general appearance we are reminded slightly of Peruvian pottery, but in most respects it is a unique vessel. On the base and on the sides, inside, are found impressions of a coarse burlap-like fabric. We find this same fabric-like impression on the bottom of the large seated female figure from the La Roma district, illustrated on Plate CXI.

No. 3 of Plate C is a flattened globular vessel, the rim apparently broken off in ancient times, and smoothed over. It is a dull-brown ware, 4 inches (10.2 cm.) high, and with an extreme diameter of 5½ inches (13.6 cm.). On one side, as shown in the illustration, is a design in relief, but it is so much weather-worn as to make it impossible for us to determine readily what it represents.

No. 4 of the same plate is a small bottle-shaped vessel, 2½ inches (6.3 cm.) high, 2 inches (5.1 cm.) in diameter at the base, and 1 inch (2.5 cm.) in diameter at the top. In the illustration will be seen a band, something like a necklace, which formerly extended around the entire surface, just below the mouth. Objects of this sort are called candlesticks by the natives; but we believe that they were not used for that object, but for ceremonial purposes.

No. 5, in shape, somewhat resembles a pitcher. The entire rim of the mouth of the vessel is broken off, so that it is impossible to state whether or not it formerly had a handle. On one side is a rude animal face in relief, on the forehead of which is a boss. This is a dark-brown ware, the vessel being 6 inches (15.2 cm.) in height, and having an extreme diameter at the expanding part of 3½ inches (8.9 cm.), while the flattened conical base is 1½ inches (3.8 cm.) in diameter.

The jar, No. 6, is another unique specimen from Manabi. It is a whistling-jar, the whistle being in each ear of the squirrel-like animal seated on its haunches. The aperture or neck of the vessel is a tube on the upper part of the back of the animal, connected by a curved, flat, slightly concaved handle attached to the back of the head. The left fore and hind legs of the animal are missing, but the right fore foot is placed against the mouth, as if holding in the mouth a piece of food, which is shown between the lips. It is of a dull-reddish color, with an extreme height of 7 inches (17.8 cm.). This is the only specimen of whistling-jar which we have seen from Manabi. This type of vessel is peculiar to the Peruvian coast; and we have but one other specimen,—a whistling-jar of black-ware from the department of Guayas, which resembles the whistling-jars of Peru, with the exception of being slightly smaller. The principle of the whistling-jar is, that, when filled with water and turned so that the water will pour out, the air is compressed, and comes out through two whistles, producing a shrill

sound like that of the double whistles of our collection. When the vessel is empty, the same effect is produced by sucking the air through the tube.

The curious vessel shown in No. 1, Plate CI, is quite unlike any other which we have from the coast. The type of decoration is a kind of applied design of vegetal nature on the wall of the vessel. The aperture is small, and the specimen may be compared with the olla in No. 1 of Plate C, which is the house-shaped vessel, and also with the smaller vessel, No. 4 of Plate C. The base of the vessel now being described is flaring; and on the under part there was formerly a conical stand, which is now broken off and smoothed over, so that we cannot exactly tell its shape. The specimen is from Jama. It is $3\frac{1}{2}$ inches (8.9 cm.) high, $4\frac{1}{4}$ inches (10.9 cm.) in diameter at the base, and the aperture is 1 inch (2.5 cm.) in diameter.

No. 2, Plate CI, is an interesting vessel from Jama. It was a highly polished red vessel, but a great deal of the surface has disintegrated. It is 6 inches (15.2 cm.) high to the top of the handles of the body of the nearly globular vessel, and $5\frac{3}{4}$ inches (14.6 cm.) in diameter. This water-vessel, characterized by the two tubes on top joined together by a handle, is of very great interest, as we have traced the type from the shores of the Carribean Sea in Colombia, southward through Ecuador, into Peru. We do not know of its existence to the north, in Central America, nor to the east, in Brazil and Argentine. In our monograph on the archeology of Esmeraldas, we shall publish a large series of outline drawings of vessels of this description, illustrating the geographical distribution of this type, and also variations in shape.

On the same plate, No. 5, is another vessel of this type, from the vicinity of Caraques. Unlike the other vessel, the form of which was probably derived from the calabash, this is a development into human form; the seated figure being represented on one side, above the head, and resting upon tubes connected at the inner rim by a handle. The general workmanship of this specimen is much cruder than the preceding one just described, and the form is not as elegant. It more closely resembles the human-figure vessels of Peru than any others of our collection. It is a dull-reddish ware, 6 inches (15.2 cm.) high, and 4 inches (10.2 cm.) wide at the base.

No. 4 is an olla-shaped vessel from the vicinity of Caraques, of a blackish-brown ware, having an extreme height of 4 inches (10.2 cm.) and an extreme diameter of 4½ inches (11.5 cm.). A very rude human figure is represented in relief on one side. A band with an incised toothed pattern is rudely carved around the vessel on the other side, above the constriction near the base.

No. 6 is a bowl with a hollow, annular base, and having two large perforations, one on each side, as shown in the illustration. It is of a light-brown ware, and is 3½ inches (8.9 cm.) high and has a diameter of 5⅞ inches (14.4 cm.) at the top. This is from the vicinity of Caraques, and is the only specimen of this character which we have from this region. We are reminded strongly of somewhat similar vessels from the interior provinces of Chimborazo and Tunguragua.

No. 3, Plate CI, is a very important specimen for our studies. As seen, it is a somewhat shallow plate resting on a broad, flaring, hollow base with which it is connected by five rods; and an opening extends through the flaring base to the bottom of the plate. This vessel is from Coaque, just north of the equator, and this type is not found to the south. From Pedernales, however, we have a fragment of a vessel representing the connecting rods, of which there are eight. The same feature, of the separate rods connecting the shallow base with the plate, is found to the north, in Esmeraldas, as we have in our collection various specimens from the region of Cape San Francisco, and also from La Tolita. The specimen from Coaque is 4 inches (10.2 cm.) in height, and the bowl is 6⅞ inches (17.3 cm.) in diameter, the base being slightly smaller,—6½ inches (16.5 cm.) in diameter. The ware is a highly polished, smooth, mottled gray of very fine and superior texture: in fact, it undoubtedly ranks in the very highest type of Ecuadorian coast ceramics. This specimen was excavated by us along the banks of the Coaque River, about four miles from its mouth, on the left bank, at a depth of 5 feet (1.5 m.) from the surface, and was broken into a number of pieces, but it is now being restored. It is the only complete specimen we have from the very important ruins of the ancient city of Coaque.

Another little pottery vessel from the region near the equator is shown in No. 10, Plate CX. It is a small goblet 3¼ inches (8.3 cm.) high, made of polished light-brown ware. It has a slightly flaring rim

and a flaring, annular base connected with the vessel by a short, thick stem. The decoration is rough incised lines, six rude birds being represented on terraced pedestals. The lower lines of designs are simply serrations. These incised patterns are crudely executed. We obtained this goblet from Don Juan, just south of the equator.

Two fragments of gray pottery, from the vicinity of Caraques, are illustrated in Nos. 5 and 6, Plate CVIII. The decoration is incised, and undoubtedly the complete vessels had very interesting patterns, as may be seen by the character of the designs in the potsherds. We have a disintegrated fragment of the neck of an olla in No. 9, Plate CVI. A rude animal face is on one side, and it resembles in a general way other necks of ollas already described. The handle of a vessel is shown in No. 8 of Plate CVI. It bears a rude face, and is of a gray ware. This is the only handle of the kind from Manabi, but we have found them in Esmeraldas.

HUMAN FIGURES AND HEADS. On Plate CII are a number of specimens of human figures, and necks of ollas, which exhibit features worthy of consideration. No. 1 is apparently the neck of an olla with a quite well modelled human face on one side. The treatment of the eyes and ears is somewhat similar to that in figures from Cerro Jaboncillo. The rim is broken. There is a possibility that this is not the neck of an olla, but part of a figure. We shall shortly refer again to this point. No. 3 is also hollow, and is possibly the neck of an olla. It represents a human head and shoulders, but like all other analogous specimens on this plate, which are only fragments, it is impossible to definitely determine this point.

No. 6, of which a side-view is shown in No. 7, is without question the neck of a large olla with a flaring rim. A human face is modelled on one side, and the strongly aquiline nose has a three-lobed ornament which hangs over the mouth. There is a button at each end of the mouth, probably for ornament. That the olla was broken in former times is shown by the presence of three holes, and probably there was a fourth one. To this feature we have already called attention in describing other specimens. The ware is dark-grayish with a polish, with traces of designs in a darker shade. This ware is identical in its finish

with some of the specimens from Cerro Jaboncillo, notably the neck of an olla, No. 4 of Plate LXXVI.

The three specimens, Nos. 2, 4, and 5, are parts of human figures, showing the head on one side of a tubular-like section of the figure. The top of each head is solid, and shows the inner surface of what was probably a plate or bowl, bringing these figures into relationship with some of the stone figures which we have described, and illustrations of which are given on Plate XXIX of the preliminary report. They all have holes through the tubular part back of the face. The figure shown in No. 2, which has the right hand on the chin, recalls some of the figures which have the hand on the face, from La Tolita in Esmeraldas. A clue as to the probable form of these figures when complete is given us in No. 5 of Plate CIV, which we shall describe later. The last figure on the plate is No. 8. It is a standing human figure with the upper part of the head missing. A necklace is shown around the neck, and there is also a nose-ornament and elaborate ear-ornaments, unlike any from Manabi, hanging down well over the shoulders. These ornaments are probably textile. There are massive leg-ornaments around the legs, just above the feet. The figure is nude. The right arm is missing, but the left hand grasps the virile member. On the back of the figure is an expanding opening with a flaring rim. We are not able to state whether this is a whistle or a vessel. The light-colored, unpolished brownish ware is identical with the ware of some of the figures from Esmeraldas.

The largest pottery figure from Manabi, and in many respects the most extraordinary, is illustrated (front, side, and back views) on Plate CIII. It is a female figure, and is 19½ inches (45.9 cm.) high. It was found in the vicinity of Caraques. It is a brownish ware, well modelled, and smooth without being polished. There are large mottled black spots and reddish patches on the back, due to firing. The upper part of the body is nude, but below the breasts there is a skirt-like garment extending nearly down to the feet. The garment has broad yellow bands at the top and bottom, and four narrow green stripes on the brown groundwork. As will be seen in the illustration, these bands, which are painted, extend around the entire garment. There is a large neckband around the neck, painted a copper-green color; and below,

extending between the breasts, is an ornament of the same color. This neckband may represent the human hairband still worn by the Jibaro Indians of Ecuador in the Oriente province. There is another necklace above, made to represent cylindrical beads. There are bands around the wrist; and from the appearance of the front of the arms, which are slightly roughened, as well as the palms of the hands, they probably, also, were painted at one time. The head is the most extraordinary feature of the figure. It shows artificial flattening and the broadening of the occiput, seen in the small figure, No. 1, on Plate CIV. Metal rings are represented in the ears for ornaments, and there was also a nose-ornament, and a simple labret protrudes from the chin. The treatment of the eyes, semi-lozenge shaped, is quite different from that of other figures from Manabi. The head appears to have a smoothed covering, which has been painted orange-color. Over the entire left side of the head will be seen a curious covering, evidently representing a close-fitting feather cap of peculiar shape. Placed against the left side of the head is a singular appendage, which formerly extended down, resting on the shoulder. The connecting section is missing. We have already spoken of this feature in describing the seated human figure (see side view of No. 4, Plate LXXXVIII), and the broken head (No. 1 of Plate XCI), which undoubtedly had the same appendage. This curious feature, seen in the large figure from Caraques, clearly shows that the smoothed orange-colored part of the head is part of the head-piece. In all its aspects this figure is one of the most notable products of the potter's art from northwestern South America.

On Plate CIV we have brought together six other figures from Caraques. No. 1 shows similarities in treatment with the figures from Esmeraldas. It is a very well modelled, hollow, standing female figure; but it was not a whistle. It is 7¼ inches (18.5 cm.) high, and very much disintegrated. The hands are at the side. The body is apparently nude, with only a neckband around the neck and a pendant hanging down between the breasts. The head, which shows artificial flattening, is broad and expanding.

No. 2 also reminds us, in its general concept and in the clay, of some of the objects from Esmeraldas. It is much disintegrated. It represents a seated figure, with the left arm resting on the knees, while

the right arm is bent; the elbow rests on the left hand, and the hand is placed against the face. A curious band, forming a cap, is on top of the head, and there is a band around the neck. Owing to the weather-worn character of the specimen, we cannot judge about the face, but, as will be seen by referring to the plate, the mouth ends in a curious snout-like manner, like an enormous, extended lower lip. This specimen is 5 inches (12.3 cm.) high.

No. 3 is another standing human figure, and is quite different from anything we have seen from this region. It is, like the other specimens, considerably weather-worn, but it shows pan-pipes held over the chest by the two hands, and not over the mouth, as in most specimens where pan-pipes are represented. The interesting feature of this specimen is the group of four small birds which are placed in a row on an expansion at the top of the head. This specimen is 8½ inches (21.7 cm.) long.

Nos. 4 and 6 are fragments of massive standing human figures, the head, arms, and feet being missing. No. 6, which is 6½ inches (16.5 cm.) high, shows a shirt-like garment displaying in the centre a rude animal-like face.

One of the most important objects in the Santos Collection from this region is No. 5 of Plate CIV. It is 9 inches (22.9 cm.) high, and is broken. We have referred to this specimen in describing figure No. 1 of Plate XC, and it should also be compared with the larger specimen from Cape Pasado, on Plate CIX. This figure is hollow, and may be divided into four sections. The flaring base which serves as a pedestal is a crouching animal, the head being broken and the tail missing. This animal serves as a support for a standing human figure. There is an opening in the back of the head, and the treatment of the face is similar to that of others which we have described on Plate CII, and which, as we have stated, were possibly figures of the same character as the figure now being described. There is a broad shirt which extends outward over the short arms, which are placed on the side, and this shirt has a rude human head in front. Over it is a necklace, represented by punctures and lines. The face has nose and ear ornaments, and the top of the head has an outward expansion resembling a plate. In this expansion is the base of what was probably

a plate or bowl. This specimen was unquestionably used for an incense-burner, and is brought into direct relationship with the stone figures of this class from the hills.

Another specimen of somewhat analogous character will be found in No. 7 of Plate CV. The base is a hollow, flaring pedestal upon which stands a conventionalized bird. The bird bears on its back an olla-shaped object with a large opening in the back. The upper part of this olla is closed, and the broken rim shows that it was probably the base of a larger vessel or receptacle. We have several fragments belonging to this class of objects, and we believe that they were ceremonial vessels. In the La Tolita collection from Esmeraldas, we find, in considerable numbers, complex pedestals for vessels of this class, often elaborately worked out.

An interesting little figure is shown in No. 2, Plate CV. It is 4 inches (10.2 cm.) high, and, unfortunately, much weather-worn. It is a standing female figure, and represents the carrying of a child on the back. The figure has a skirt, and there are indications of a band around the neck, and hanging down over the chest. The baby is held, inside the folds of a shawl-like garment, on the back, with the left arm of the child on the back of the woman's head, and the head over the right shoulder. This is the only figure we find, among the hundreds we have from the Ecuadorian coast, which shows the carrying of a child. On the same Plate, CV, are several other human figures. No. 1 is a seated female figure, the hands placed on the bent knees. The head is very much flattened. No. 6 is the most significant figure in the whole collection. It is a seated human figure, 6 inches (15.2 cm.) high, the arms and legs being broken, and part of the head missing. In texture and finish, the light-brown clay is identical with the clay of some of the figures from La Tolita, and the figure itself is sitting on a tubular seat identical in shape with a number from La Tolita. We believe this specimen was brought from the adjacent northern province, and it shows evidence of contact between the people of the Caraques region and those who lived near the mouth of the Rio Santiago.

We have another human figure, No. 8, Plate CVIII, which is very much broken and quite weather-worn,—that of a seated female figure

with the upper part of the head missing. The body is fairly well modelled, but the features are so battered as to be indistinguishable. From the general appearance of the body it would seem likely that a pregnant figure is intended to be represented. We have from La Tolita a large series representing this condition.

On Plate CVI are several heads, parts of human figures. No. 3, which is natural size, is part of a small figure. No. 4 is characterized by the deep, sunken eyes and prominent cheek-bones. It has a perforation through the nose. This head may be a small mask. No. 5 is a rude face without any head-dress, and is interesting for the stub, which is intended to set into a body, possibly of wood. Nos. 6 and 7 are large, massive heads. No. 6 is 4 inches (10.2 cm.) high, hollow, and of a dull-orange color. The nose is missing, but the face is noteworthy for the small size of the eyes. There is a ridge or band extending over the forehead and down around the base of the head at the back, probably some sort of cap or other class of head-gear. No. 7, likewise hollow, is $3\frac{1}{2}$ inches (8.9 cm.) high, and of a dull-brown color. The features have a drawn appearance. The cheek-bones are prominent, and the ears large. There are two pairs of bosses, — one set on the left side of the head, over the ear; and the other set at the base of the head, under a band which runs from the forehead above the nose, and back over the head, to the base of the right ear. On the right side of the head is a large band, possibly representing the same feature which was found on the large figure on Plate CIII, and which has already been described.

WHISTLES. We include in our series of figures a few more or less fragmentary whistles from the Caraques region. A number of the specimens are very interesting, and quite unlike any other from the entire coast. No. 4, Plate CV, is a small whistle $1\frac{3}{4}$ inches (4.5 cm.) high. It is a seated figure, the left arm being bent, with the hand placed over the mouth. The whistle is in the small globular body, the mouth-hole being at the back. There is a tiny hole in the back of each shoulder, and a small slit between the two holes. No. 5 was probably a standing human figure, and is interesting because of the incised lines which separate the arms from the body, and form the loin-cloth, neck-

lace, and band over the arms and head. The whistle, which is very shrill, is in the back of the head.

No. 1 of Plate CVI is also the head of a figure. It is a whistle; the mouth-piece being in the back of the head, and the whistle in the neck. No. 2, also a human head, is a whistle. It is of black-ware, and has a curious series of ridges, as will be seen in the illustration. There are two mouth-pieces, one on each side of the high ridge running over the top of the head.

The two most interesting whistles are illustrated on Plate CVIII. No. 10 is a conventionalized animal with two front legs, the rear of the body ending in a single point, which takes the place of the legs. It is a brown-ware somewhat polished, and has incised lines for decoration. The mouth-piece is a hole in the centre of the back, and there are four single holes,—one in each shoulder, and one on each side of the rear end of the animal. The other whistle, No. 9, is one of the best bits of modelling in clay which we are able to present in our study of the ceramic art of Manabi. It is a bird, probably a parrot, and is beautifully executed. The entire figure is hollow, and the whistle is produced by blowing into the hole at the top of the head. The bird rests on a thin and somewhat convexed slab. Unfortunately, the end of the bird on the left side is broken, so that we are unable to tell whether the figure is fairly complete, or formed part of a larger object.

Another whistle from Caraques is shown in No. 9, Plate CX. We have already called attention to this specimen in describing the whistles from the vicinity of the hills. Nos. 6 and 7 are front and back views of a whistle from Cojimies, and it is the only one which we present from the extreme northern limits of the province of Manabi. It is very much disintegrated, and the entire lower part is missing. It represents a standing human figure playing pan-pipes. The body and head have incised decorations, recalling the incised decorations on a certain class of objects from Cerro Jaboncillo. The ware of this specimen, however, is quite different from that of the hills, and has more the character of the pottery from Esmeraldas. The whistle, however, is of the type having a single mouth-piece and two whistles, one back of each arm, and for that reason has been placed in this series.

The last whistles which we shall describe are Nos. 1 and 2 of Plate CX. They are from Don Juan, which is on the coast, a few miles south of the equator. No. 1 is a simple little whistle representing a seated human figure, the mouth-piece being a stem which forms an extension at the back of the figure, near the base. The whistle is in the head. No. 2 is a curious whistle, being a seated figure. The arms are missing, but the head is quite out of proportion to the body. The features are well modelled, and there are traces of green paint on the ear-ornament on the left ear. The whistle is produced by blowing into a hole at the back of the head, the entire figure being hollow.

Under the head of whistles, we would call attention to No. 3 of Plate CX, which is not a whistle, but a rude human figure representing the playing of pan-pipes. It was found in Caraques.

MASKS. Two unique objects from the vicinity of Caraques are illustrated on Plate CVII. They are probably masks, and the small specimen, No. 1 of Plate CV, also belongs to the same class. The fragment of an animal's head, No. 1 of Plate CVII, is 5½ inches (13.6 cm.) high and wide. The curious large and protruding eyes, with encircling ridge extending down to the tiny nose, and the large tubular-like protruding mouth with teeth, are the distinguishing features of this broken mask. The other specimen, No. 2, is complete. It is 7½ inches (19.1 cm.) high and wide. It represents a rude human face with a high circular rim on the reverse side. This rim has two pairs of holes near the edge, on a line with the eyes. As the bottom of the rim is broken, it is impossible to state whether there were formerly holes in the lower part of the rim. The mouth, which is small, has protruding lips, and the eyes are circular openings. The cheeks are represented by raised knobs, and there is a groove running from each side of the nose down over and under the eyes, and thence over each cheek, to the side of the face. There are series of points on the rim of the front edge of the mask. Both the eyes and mouth are perforations extending through the thick face of the mask. This is the only example of a mask which we have seen along the coast, either in Manabi or Esmeraldas, which could have been used as a mask in the strict sense of the word.

The specimen, No. 1 of Plate CV, is a small, oblong human face. It has three perforations at the upper edge. This small mask-like object is quite unlike any others which we have found.

MISCELLANEOUS SPECIMENS. On Plate CVIII are a few miscellaneous specimens of pottery from the region under consideration. Nos. 1 and 2 are spindle-whorls closely resembling those from the hills. No. 4 is a large stamp, 3½ inches (8.9 cm.) long, and having a stout stub at the back. The design possibly represents a conventionalized open jaw of an animal. The little stamp-like specimen, No. 3, is about 2 inches (5.1 cm.) long, and also has a stub at the back. The series of reticulated grooves suggest that this might have been intended as a grater for use in a small wooden mortar. Nos. 11 and 12 are two very singular animal effigies. Both are solid figures slightly over 2½ inches (6.3 cm.) in length. The chief characteristic of No. 11 is the long tail bent back over the body, the tip resting on the back of the head. The other specimen, No. 12, represents a curious animal with a hooded face and a singular stubbed tail. There is a perforation through the entire figure above the four legs. Both of these animals are too conventionalized for identification. The last specimen on Plate CVIII is No. 7, which is the head of an animal. It is hollow, there being an opening in the back; and in the mouth, which is open, there is a small tongue, which makes two apertures. There is a possibility that this is a whistle.

Two other miscellaneous specimens from Caraques are illustrated on Plate CX. No. 4 is an erect animal figure, the lower part being missing. The position of the fore legs of this animal is most interesting. The left paw grasps the lower jaw, while the right fore leg is raised, the paw grasping the top of the head. Another noteworthy feature is the enormous abdomen, giving the idea of pregnancy. The last object of miscellaneous character is the little nipple-shaped specimen, No. 5, Plate CX. It is illustrated natural size. What this clay specimen was used for, we are unable to state, as we find no other objects of this shape in our collection. There are a few other broken specimens in the Santos Collection, which we shall not describe, as they are too fragmentary for our use. We regret not having had the opportunity to have studied and included here the collections of the parish priest of Caraques.

HUMAN FIGURE FROM CAPE PASADO. The last specimen to be described from the region between Caraques and Cojimies, and one of the most important, is the large pottery figure illustrated on Plate CIX. It was found several years ago in the vicinity of Cape Pasado, and was presented to us by Señor Don Benito Plaza. Unfortunately, it is broken; but it belongs to the class of figures of which we have described two specimens,—one from Cerro Jaboncillo, No. 1, Plate XC, and the other in the Santos Collection, No. 5, Plate CIV. The figure is at present 19 inches (48.2 cm.) high, and may be divided into four sections,—the large circular pedestal with low, flaring under rim; the animal crouching on the pedestal; the large wooden seat resting on the back of the animal; and the human figure standing on the top of the seat. This specimen is of paramount interest to us in its relation to the problem of the stone seats, and the section representing the seat is included in our series of drawings (see No. 16, Plate II). We need not again describe the seat, as it has already been considered on p. 120, in our study of the stone seats. The figure standing on this representation of a wooden seat is massive and rather crudely modelled; the head is battered; and the arms are missing. An interesting feature is the large poncho-like garment, partly missing, but showing a necklace of beads of some sort on the front and back. Curiously enough, the most elaborate section of this necklace is on the back, and two strings for tying the same are shown. With the beads on this part of the necklace are two lizard-like figures, representing ornaments of stone or shell. On the front, hanging well down over the front of the poncho by a strap, is an ornament undoubtedly representing a large gold plate of peculiar shape, a form found in gold in Colombia. We have now finished our description of the material from the region to the north of the hills.

As a class, the small collection which we have described is distinct from the material from the hills: at the same time, however, we have shown points of resemblance in the motifs. We have also found a number of points of resemblance between the culture of the Caraques region and that of the Esmeraldas province, and certain indications of contact with the interior of western Colombia. The entire stretch of coast between Caraques and Cojimies is of great importance for future investigation.

LARGE HUMAN FIGURE FROM THE LA ROMA DISTRICT. We illustrate on Plate CXI a large, rude, seated female figure from the La Roma district. It is now 22½ inches (57.1 cm.) high, but originally it was much higher, the upper part of the head having been broken off. This figure is unlike any others which we have, and the different parts of the body are entirely out of proportion to each other. The legs are short and stumpy. While the upper part of the body appears to be nude, the breasts being prominently shown, across the legs appears to be a skirt, although there are no indications of this garment on the upper part of the figure. On the skirt is placed a long, oval-shaped vessel. There is a necklace, made of two strands of beads, also a three-strand arm-ornament; and on the face are indications of five small balls, replacing the ear. There is a nose-ornament represented on the aquiline nose, and a button-like labret on the lower lip. An interesting feature of this specimen is the indication which it bears of having been modelled on a piece of burlap-like cloth, the imprint being found on the under part of the base and also on the under part of the skirt. In general technique there is no resemblance between this figure and any of the others in the entire collection from Manabi.

One other specimen from the region of Manabi and southward is illustrated in No. 8, Plate CX. It is, apparently, a slender stem or stand of a vessel, with a slightly flaring, annular base. There is a hole in the back of the stem. The upper bowl is missing. The head and shoulders of a rude animal figure are shown on one side, and there is a prominent proboscis. The fore paws, which appear like human arms, are grasping the face below the eyes. The ware is grayish, and has been highly polished, resembling the ware of the necks of ollas from the La Roma district. There is also a resemblance to some stands of vessels in the Esmeraldas collection. This specimen was found in the ruins of Jocay.

THE PROVINCE OF GUAYAS AND THE ISLAND OF PUNA. Having finished our detailed account of the antiquities of Manabi, we will turn our attention to the southern province of Guayas, of which region we have already treated historically (see pp. 4 to 12, and notes in the Appendix). What information we have been able to bring

together concerning its archeology will be found also in the same place, hence we shall limit ourselves, at this time, to a brief description of the few objects in our collection, from the province of Guayas and the Island of Puna.

OLLA FROM CAPE SANTA ELENA. On Plate CXII is a large olla from the vicinity of Cape Santa Elena. It is 20½ inches (52.1 cm.) high, and has a diameter of 19 inches (48.2 cm.). This remarkable olla is unique. We have called attention to a fragment of a vessel from the hill region (see No. 6, Plate LXIX, and p. 189), which appears to be possibly similar in character, but varies somewhat from the olla under consideration. This vessel is really in two sections,—the large, broad vessel proper, resting on a low, annular base; and the upper section, deep gourd-shaped, forming the large orifice connected to the vessel proper by a short, thick neck. It is well modelled, made of a fine clay of gray-ware considerably polished, and bears, as will be seen in the illustration, designs almost black. On one side of the gourd-shaped upper section is the head of a conventionalized animal, the treatment of which is entirely different from anything we have yet seen from the coast of Ecuador. The pattern which we have referred to on the front appears to be a Y-shaped design formed by parallel lines, probably indicating a band around the neck, assuming that the upper section represents the entire head of an animal. There are also lines and bands around the sides and back of the vessel. Those on the sides appear like bent arms, each one ending in five ribbon-like fingers. On the back the design is, perhaps, intended to represent the body of a mythical animal of the type found in the bas-reliefs.

We have two smaller specimens of pottery vessels from the region slightly to the north of Cape Santa Elena. No. 7 of Plate CXIV is a bowl from a place on the coast between Colonche and Manglar Alto. It is 3 inches (7.6 cm.) high, and 6½ inches (16.5 cm.) in diameter. It is of coarse dark-brown ware, and is decorated with bands of incised serrated patterns. The ware does not compare with any of the pottery vessels from the hills, being of a friable texture. From Manglar Alto we have a vessel (not illustrated) which in many respects is the finest ware from the Ecuadorian coast. It is a small olla-shaped bowl, 4 inches

(10.2 cm.) high, with a flaring rim. The very fine texture and high polish, in places appearing almost like a glaze of reddish-brown color, remind us strongly of vessels which have been found in various parts of Mexico and Central America, which have an accidental glaze, due to some property of the clay and firing. Aside from this specimen, we have not seen any other example of this ware south of Salvador in Central America. We illustrate a potsherd from near Colonche, No. 6 of Plate CXIV, which bears incised decorations, apparently representing rude birds. This, also, is a fine quality of ware, with a smooth polish.

The vessel illustrated in No. 8 of Plate CXIV was obtained near the city of Guayaquil. It is of black-ware and is a whistling-jar. The vessel itself is of the shape of a double water-gourd. On the top of one section is a tube connected by a handle with the head of a bird, in which is the whistle. The two eyes of the bird are holes, which have to be covered before the jar will whistle. At the base of the section containing the tube there is a small aperture, but this may be modern. The specimen is 5 inches (12.3 cm.) high, and there can be little doubt that it came from Peru, as it resembles in every way the ware and shape of many whistling-jars from the Peruvian coast.

A small fragment of a vessel is shown in No. 9, Plate CXIV. It is a foot or handle decorated with a rude face, and has the section of the rim of a plate, with the handle and under part of the vessel of brown-ware. The surface of the plate is painted red, and has two dull, brownish-yellow lines. This is probably a fragment of a tripod vessel; but it is not at all like Peruvian ware, nor does it resemble any vessels, or fragments of vessels, which we have seen from the Ecuadorian coast. It came from Daule, to the north of Guayaquil, in the great Daule Valley, which is approximately in the same latitude as Manglar Alto, but separated from the coast by a considerable mountain chain.

The last pottery vessel now to be described is No. 10, Plate CXIV. It is a much flattened, calabash-shaped olla with a long, solid, pointed handle, and was found in the province of Guayas. The vessel is 9½ inches (24.2 cm.) in diameter, 3½ inches (8.9 cm.) high, and the handle is 5 inches (12.3 cm.) long. Seler has illustrated, in the portfolio of Peruvian pottery published by the Berlin Ethnographical Museum, three vessels from Recuay in northern Peru.[91] They are of the same type as

our specimen, and one has apparently the same designs. The Recuay pottery is usually grayish in color; but ours is dull-orange, the patterns being outlined in black. With this exception, the Guayas vessel might have come from the Peruvian region. The form is one which we have never seen outside of the Recuay district, and it suggests at once contact between the two culture areas.

We have mentioned the collection of spindle-whorls from the Island of Puna, brought together by Señor Gabriel Pino Roco, and in the preliminary report we called attention to a number of spindle-whorls from the same island, described and illustrated by Archbishop Suarez. The whorls which Suarez made known to us, five in number, were originally covered with a thin lamina of gold, and he reproduced the designs of three of these whorls. We secured three whorls from the Island of Puna, of somewhat similar character, which will be found illustrated on Plate CXIV. No. 1 shows a drawing of the whorl, while No. 2 gives the design spread out. No. 4 shows a whorl of different shape, identical with three illustrated by Suarez; and in No. 5 the design is shown. No. 3 gives simply the design on the third whorl of our collection. All are drawn natural size. The design in No. 2 shows an animal and a bird, and yet, although the shape of the whorl is entirely different from any from Manabi, the design strikingly recalls the patterns from that region. The design in No. 3 is a conventionalized animal, while No. 5 is apparently a series of birds. These spindle-whorls which we illustrate are typical of the spindle-whorls of the Island of Puna, but we find on them no traces of any covering of gold-leaf such as was described by Suarez. Although we have called attention to a similarity in design with the spindle-whorls from Manabi, yet, as a class, these whorls are distinctly restricted to this region.

Another specimen from Puna is an axe-like idol, No. 1 of Plate CXIII. It is 4 inches (10.2 cm.) long, and is the rude representation of a human figure. A thin copper axe obtained in Puna, and illustrated in No. 3, Plate CXIII, is $4\frac{1}{4}$ inches (10.9 cm.) high, and has a perforation near the end for attachment to a handle. With the exception of the perforation, this implement resembles some of the copper axes from the state of Oaxaca. It is not to be compared with the well-known type from the region of Cuenca, being of a different kind.

The massive axe with semilunar plate, and perforation near the head, is a specimen of very great interest. It is from Manglar Alto, but there can be scarcely any doubt that this specimen was made in the interior, as it is what we know as the "Cuenca type." Axes of this shape are found in large numbers in this interior section of Ecuador, though they are also found to the north, in the great interior plateaus. This specimen is the only one which we have seen from the coast, and we believe that it must have been brought by trade from the interior. These axes are often called bronze, but this one is pure copper. It is 4⅞ inches (12.2 cm.) high, and the plate is 5¼ inches (13 cm.) long. All of these axes are characterized by a thick, broad head, and they gradually diminish in thickness from this point down to the blade. We would mention that this type of axe was also found in Peru.

An object of undoubted Peruvian origin, and the last specimen to be described, is a battle-axe of almost pure copper (see No. 2, Plate CXIII). This specimen is the six-starred club-head, but with a semilunar knife or axe-blade at right angles to the star-shaped head, and replacing one of the stars. It is 4¾ inches (12.2 cm.) long, with a blade 2½ inches (6.3 cm.) long, and is from the Island of Puna. Objects of this class were the most effective weapons for close-range fighting used by the ancient Peruvians. The six-pointed copper club-head was in ancient times quite common along the western part of South America. It also occurs in stone, and has been frequently illustrated and described. Copper weapons are found in Ecuador, Peru, Chile, Bolivia, and Argentine; but specimens like this one are exceedingly rare. We recall but two others which have been published. Ewbank, in the section on Indian Remains, in the Gilliss Report on the "United States Astronomical Expedition to the Southern Hemisphere," figures a copper or bronze axe of this type, but the blade is celt-shape.[92] He writes that it came from a grave near Cuzco, Peru. Bandelier, in his recently published work, the "Islands of Titicaca and Koati," illustrates an axe, which he calls bronze, with five points and a celt-like blade.[93] It is from the Island of Titicaca, in Bolivia. It is interesting to find this weapon in the department of Guayas, and its nearest counterpart in the Cuzco and Titicaca regions. We may unquestionably attribute this one to the Quichuas: at least it shows Quichua influence.

CONCLUSION. It was our intention to have given at the end of this volume a general summary or résumé of the results of our explorations and studies of the antiquities of Manabi. As will have been noted by a careful perusal of these pages, we have, in describing the ancient culture of this region, made constant reference to such resemblances to the artifacts of other culture areas as have presented themselves. We cannot at this time summarize the points of resemblance and difference between the collections from Manabi and those from Esmeraldas. This can be brought out more satisfactorily in our next volume, discussing the archeology of the latter province.

A comparative study of the material we have brought together reveals differences quite as marked as those which we find in the state of Oaxaca, Mexico, in the region of the Mixtecs and the Zapotecs. The people of Manabi, for the most part, developed their culture in an arid region, except for the tropical oases on the tops of the hills. In Esmeraldas, however, we find no arid country, the climate being humid, and the general conditions different from those in Manabi. We have found no stone sculptures of any sort from Esmeraldas, but comparative abundance of stone implements: in Manabi, on the contrary, we have shown that implements of stone are very rare, with the exception of hammerstones, and we have found but few of copper. Here, where the art of sculpture was most highly developed in Ecuador, we find but few tools or implements. If we assume that the people of Manabi migrated north into Esmeraldas, it seems strange, indeed, that they did not carry with them this phase of culture,—the making of large sculptures. Furthermore, the corral type of house is missing in the Esmeraldas province.

There is nothing in Manabi to indicate the age of the remains on the hills, or to reveal whether they are contemporaneous with the relics found on the Peruvian coast. The only criterion is that advanced in the preliminary report; namely, that the seats and bas-reliefs are not mentioned by early Spanish explorers, and consequently the towns on the hills were probably abandoned, and covered by the forest, at the beginning of the sixteenth century. It does not appear that they were conquered by an alien people, and thus forced to abandon their former customs, as, in the Manabi region which we have explored, there are no

traces of an intrusive art. The ancient sculptures are so specialized in form, and the area in which they are found is so restricted, that they may reasonably be attributed to a people who either became extinct, or migrated to another part of the coast, giving up the ideas which found expression in the peculiar type of sculptures found only in the central part of Manabi. Owing to our lack of knowledge of the ancient people of Manabi, to be obtained from historical sources, we are handicapped at the outset in interpreting the meaning of much of the material which we have found.

We have endeavored to show that the typical culture of the hill region is restricted, so far as our present studies will enable us to judge, to the region between the Chone River and the low-lying hill region north of Callo. The material obtained by Dorsey from the Island of La Plata resembles, in a general way, what we have obtained from the Hills, and undoubtedly should be considered as pertaining to the general culture of this part of Manabi. As the Island of La Plata was resorted to as a place of worship, some foreign material from Peru was found, notably objects of gold, and pottery vessels. From the mainland, in the region of the Hills and to the northward along to Esmeraldas, we have not obtained a single specimen which shows that it was brought from the Peruvian coast, although, as we have pointed out, there are a few things which indicate Peruvian influence. We have found a few resemblances to the coast culture of Peru, but not enough to show any great amount of influence of the Peruvian culture upon the coast culture of Manabi. From the close proximity of the two culture areas, it is reasonable to expect to find some similarities. At the same time, in view of our large collection, the few objects which show Incasic influence will prove, as we stated in the preliminary report, that the people from the coast of Peru exercised but little influence upon the people of Manabi. The larger question—Who were the people who left these vestiges of culture in Manabi?—is difficult to answer. We believe we have shown conclusively that there can be little doubt that the historical accounts of the settlement of the Caras in this region are correct. We must await, however, the results of our intended researches in the provinces of Pinchincha and Imbabura, to obtain the necessary material to enable us to make a systematic comparative study of the

archeology of the two regions. As we have constantly reiterated in this report, there is great need for further researches in Manabi.

Points of resemblance between the people of the coast of Ecuador and Central America might be brought forward, but we shall not do more than simply call attention at this time to these few facts. It will be necessary for us to continue our work into the interior of northern Ecuador, and through the Cauca Valley in Colombia, as well as northward along the Colombian coast, from Tumaco to the Rio San Juan. Our investigations thus far have opened up a very interesting field of research, and, so far as we know at the present time, the characteristic features of the Esmeraldas coast continue along the Colombian shores, at least as far as the Rio Guapi. How much farther north they extend, we are unable to say until further investigation; but, if we are guided by the statements of the Spanish conquerors, we may suggest that Rio Guapi probably marks the northern limit of this culture area, which extends from the equator northward.

A final word may be said regarding the scant material we have presented from the department of Guayas. We have shown contact between this province and the coast of Peru, as well as with the interior southern provinces of Ecuador. There appears to be, however, a substratum of distinctly local culture, and we cannot too earnestly urge the necessity for careful and extended explorations in this most important section of South America, coming, as it does, between the territory of the hill culture of Manabi and the coast region, beginning at Tumbez, of Peru. We shall not, unfortunately, be able to continue this work ourselves, as our plans for the forthcoming expedition to Ecuador are for an investigation of the southern and northern interior provinces.

APPENDIX

NOTES

1. The work of Santa Cruz was published in Innsbruck in 1908 by Franz R. v. Wieser, under the title, "Die Karten von Amerika in dem Islario General des Alonso de Santa Cruz Cósmografo Mayor des Kaisers Karl V. Mit dem Spanischen Originaltexte und einer kritischen Einleitung." That which is published is the fourth part, and on p. 52 is the following concerning the Island of Puna: "Mas adelante la costa haze un seno grande y dentro del dos yslas, la una prolongada nortesur por doze leguas dicha Tinbala o Anpana, la qual descubrio Francisco Pizarro y hallo en ella algun oro y muchos mantenimientos, porque era bien poblada de Yndios." On Table 12 is the map of southern Central America, and the west coast of South America to the region just below Tumbez, and the name Anpana appears opposite the Island of Puna.

2. For an interesting study of early maps of this region, we would refer the reader to the recently published paper by Professor Edward L. Stevenson on "Early Spanish Cartography of the New World. With Special Reference to the Wolfenbüttel-Spanish Map and the Work of Diego Ribero." It contains a reduced facsimile of the Wolfenbüttel Spanish Map, and appeared in the Proceedings of the American Antiquarian Society, New Series, Vol. XIX, Part 3, April, 1909, pp. 369–419.

3. The work of Agustin De Zarate is entitled, "Historia del Descubrimiento y Conquista de la Provincia del Peru." We use the edition contained in "Historiadores Primitivos De Indias," Vol. 2, of the "Biblioteca de Autores Españoles," Madrid, 1886. On p. 466, chap. 6, is the following concerning the Island of Puna: "Pasada la linea Equinocial, hácia el mediodia hay una isla de doce leguas de bojo, muy cerca de la Tierra-Firme la cual isla llaman la Puna, abundante de mucha caza de venados y pesqueria y de muchas aguas dulces. Solia estar poblada de mucha gente, y tenian guerras con todos los pueblos comarcanos, especialmente con los de Tumbez, que están doce leguas de alli. Vestian camisas y pañicos; eran señores de muchas balsas, con que navegaban. Estas balsas son hechas de unos palos largos y livianos, atados sobre otros dos palos, y siempre los de encima son nones, comunmente cinco, y algunas veces siete ó nueve, y el de en medio es mas largo que los otros, como piértego de carreta, donde va sentado el que rema; de mancra que la balsa es hechura de la mano tendida, que van menguándose los dedos, y encima hacen unos tablados por no mojarse. Hay balsas en que caban cincuenta hombres y tres caballos; navegan con la vela y con remos, porque los indios son grandes marineros dellas, aunque algunas veces ha acaescido, yendo españoles en las balsas, desatar los indios muy sotilmente los palos, y apartarse cada uno por su cabo, y asi perecer los cristianos y salvarse los indios sobre los palos, y aun sin ningun arimo, por ser grandes nadadores. Peleaban los desta isla con tiraderas y hondas, y con porras y hachas de plata y cobre. Tenian muchas lanzas con hierros de oro bajo, y hombres y mujeres traian muchas joyas y anillos de oro. Servianse con vasijas de oro y plata, y el señor de aquella isla era muy temido de sus vasallos, y tan celoso, que todos los servidores de su casa y guardas de sus mujeres traian cortadas las narices y meimbros genitales."

4. Velasco, "Historia Antigua del Reino de Quito," p. 36. The Spanish text is as follows: "La Provincia é isla de Lapuná tenia otro famoso templo dedicado á Túmbal Dios de la guerra. Era esta nacion igualmente guerrera que supersticiosa. El idolo tenia una figura formidable, y estaban á sus pies diversas especies de armas bañadas con

la sangre de los saerificios. Estos eran siempre de los prisioneros de guerra, los cuales eran abiertos vivos sobre la gran ara colocada á la mitad del templo. Todo él era oseuro sin ventana alguna, y las paredes estaban cubiertas de pinturas y esculturas horribles."

5. Suarez, "Prehistoria Ecuatoriana Ligeras Reflexiones sobre las razas indigenas, que poblaban antiguamente el territorio actual de la Republica del Ecuador," Quito, 1904. We give in another part of this monograph a description of the few antiquities which we have secured from this region. We have ineluded the aecount given by Suarez of the spindle-whorls, to which we have referred in the preliminary report.

6. The following chapter, taken from the work of Cieza de Leon, relates to the Island of Puna. The translation by Markham, published by the Hakluyt Society, is used. This chapter and the two documents which follow, relate not only to the Island of Puna, but also to the Province of Guayas. The aecount given by Cieza de Leon, is as follows:—

"Of the island of Puna, and of that of La Plata: and concerning the admirable root called sarsaparilla, which is so useful for all diseases.

"The island of Puna, which is near the port of Tumbez, is little more than ten leagues round, yet in former times it was considered an important place; for, besides that the inhabitants are great traders, and possess in their islands all things needful to sustain human life, which are sufficient eauses for their wealth, they are held to be valiant by their neighbours, and in ancient times they waged fierce wars with those of Tumbez and of other provinces. For very slight causes they killed each other, and seized their women and children. The great Tupac Ynca sent ambassadors to these islanders, proposing that they should be his friends and allies; and they, owing to his great fame, heard his embassy, but refused to serve him, and they were not entirely subdued until the time of Huayna Ccapac, although others say that they had been conquered and brought within the rule of the Yncas by Ynca Ynpanqui, but that they had rebelled; however this may have been, the events connected with the murder of the captains, already described, certainly took place. These islanders are of middle height, and dark skinned. They dress in cotton cloths, both men and women, and wear *chaquiras* on several parts of the body. They also put on pieces of gold in order to look smart.

"The island is covered with large woods and flowering meadows and abounds in fruit. It yields plenty of maize, *yucas*, and other edible roots, and there are also birds of all kinds, such as parrots, *guacamayas* (Macaws), and of beasts, monkeys, lions, foxes, snakes, and many others. When the chiefs die they are lamented by all the people, as well men as women, and are interred with signs of respect, according to their custom. They bury the most valuable things, arms, and most beautiful women with the deceased, the women being buried alive in the tombs to keep their husbands company. They mourn for the dead during many days, and shave the heads of the women in the houses, even those who are the nearest relations. They are given to religious ceremonies, and to the commission of some crimes. The devil had the same power over them as he had over other Indians, and some of them conversed with him.

"They had their temples in dark and hidden places, and carved the walls with horrible pictures. In front of their altars, where they performed saerifices, they killed many animals and some birds; and it is said that they even killed slaves or prisoners taken in war, offering up their blood to the accursed devil.

"In another small island, at no great distance, the natives say that, in the time of their ancestors, there was a temple, or *huaca*, where they also worshipped their gods and performed saerifices. Round the temple they had quantities of gold, silver, and other

valuable things, such as woollen cloths and jewels, which had been offered up at different times. It is also said that some of the islanders of Puna committed the accursed sin. . . .

"An herb grows in abundance on this island, and in the province of Guayaquil, which is called sarsaparilla because it grows like a bramble from its birth, and small leaves grow out of the suckers and other parts of the branches. The roots of the herb are useful for all sicknesses, and especially for *bubos*, and to mitigate the evil which this pestiferous disease causes to man. Those who wish to be cured are put in a warm room, well covered up, so that the cold or air can do no injury. Then, by merely purging, eating delicate meats, and drinking an infusion of this root for some days, without any other remedy, the evil is cleared out of the body, and shortly the patient is more healthy than he ever was before, and the body is left without any vestige of the evil, but remains so perfect that it seems as if it had never been ailing. Thus they have truly effected great cures in the town of Guayaquil at different times. Many, too, whose bowels are out of order, by simply drinking an infusion of these roots, become healthy, and in better condition than before they were taken ill. Others suffering from *bubos* are also cured, as well as those with boils or tumors. I take it for certain that this is the best root and herb in the world, and the most useful, as is proved by the numbers who have been cured by it. This sarsaparilla grows in many parts of the Indies, but none is so good or efficacious as that which is found on the island of Puna and in the province of the city of Guayaquil." —*The Travels of Pedro de Cieza de Leon, A.D. 1532–50, contained in the First Part of his Chronicle of Peru*, Chap. LV, pp. 198–200.

We reprinted in the notes to the first report, pp. 85 to 100, an important document relating to Manabi. This was the second part of the "Descripcion de la Gobernacion de Guayaquil" published in the "Coleccion de Documentos Ineditos del Archivo de Indias." Luis Torres de Mendoza, Editor, Tomo IX, Madrid 1868. We herewith print the first part in full, as it contains valuable material concerning the present Province of Guayas, and notes regarding the Island of Puna.

"DESCRIPCION DE LA GOBERNACION DE GUAYAQUIL, EN LO NATURAL.[1]

"Esta gobernacion se divide en dos partes: primera la de la ciudad de Guayaquil, con los pueblos de indios de su districto; y segunda, la de la ciudad de Puerto Viejo con sus puebles de indios; esta gobierna un teniente puesto por el gobernador de Guayaquil. Llámase Guayaquil la ciudad principal y toda la provincia del nombre de un gran rio que por ella pasa.

"La ciudad está fundada entre dos cerros, que parece como asiento de silla gineta: tiene toda ella sesenta y una casas. La tierra en contorno es toda montosa, que comienzan los montes desde la misma ciudad.

"Está en grado y medio de latitud al Sur. Dista del mar del Sur diez y seis leguas; de la ciudad de Quito sesenta leguas; de la de los Reyes trescientas, y tiene al Setentrion la ciudad de Cuenca y sus términos; al Mediodia confina con los de Puerto Viejo, y al Oriente con los de Quito: al Poniente tiene la costa del mar vecina á la de Panamá.

"Su distrito hácia el de Cuenca se estiende veintidos leguas, y otras tantas hácia Quito y Puerto Viejo; hácia el mar y punta de Santa Elena tiene veinticuatro leguas, y en este contorno mucha tierra.

[1] B. N. J. 42.

"El temple es caliente, principalmente el tiempo que llueve, que es el que llaman invierno. El verano es muy fresco, tanto que las más de las noches, se siente alguna manera de frio; pero son ocho ó nueve meses de muy buen verano. El invierno suele durar tres meses, tan lluviosos, que en muchas partes anega la tierra, y entonces para ir á las Chanias se navega en barcos y balsas; Comiença el invierno por Navidad, y la gente de la tierra á hacer sementeras.

"En torno de la ciudad y en otras partes cercanas á los rios, hay mucha tierra llana y fértil, pero la más es tierra fragosa cubierta de monte y de manglares, y estéril toda la que está lejos de los rios, no por su naturaleza, sino por falta de agua, por ser tan largos los veranos; por esto no se coge trigo, vino ni aceite: cógese algun algodon; hasta dos mil arrobas en toda la juridicion.

"En la isla de la Prisa, que es siete leguas de la ciudad, hay salinas: son unos poços donde se cuaja la sal de agua del mar; sácanse cada año más de veinte mil hanegas: estaban descubiertas estas salinas antes de la entrada de los españoles: son agora de S. M., y ocupa el arrendador en beneficio dellas hasta veinte esclavos y seis ó ocho indios.

"Los vientos ordinarios que reinan en aquellas costas son: de verano el Sur, y de invierno el Sudueste.

"El gran rio Guayaquil nasce en los yumbos; estos son indios en las tierras de Quito al pié dellas, que caen ya en término de Guayaquil: como veinte leguas de la ciudad, se le comienzan á juntar otros rios: el primero, el rio Bacay, que viene de hácia las montañas de Puerto Viejo.

"El rio de Yaguache (que tambien se llama de Guayaquil), que desciende de las montañas de Cuenca, hácia la parte que llaman Chilchil.

"El rio de Xausa, que sale más arriba y viene de las montañas de Quilea.

"El rio de Baba, que viene de hácia la provincia de los Siehos, de las espaldas, junto á Quito.

"El rio de Chelintomo, que baja de las montañas y indios que llaman de Abauei, distrito de Cuenca.

"El rio de Bahayo, que viene de hácia la provincia y poblaciones de indios que llaman Andamarca.

"El rio de Illangnto, que viene de hácia Chimbo, pueblo del distrito de Quito.

"El rio del puerto del desembareadero, que baja de la sierra que llaman Puchara, camino de Quito.

"Otro rio nombran las relaciones, de Bulobulo: dicen que entra en la rio grande, que por otro nombre se llama Guayaquil el Viejo: es de dudar si es el mismo que el de Yaguache. El rio grande de Guayaquil, corre atravesando toda la provincia: su entrada en el mar del Sur se cuenta desde una isla llamada de Santa Clara, desde la qual á la ciudad hay diez y seis leguas: á siete de la ciudad hay diez y seis leguas; á siete de la ciudad, el rio abajo, está la isla de Punao, con su puerto llamado de Bui: hasta alli llegan á surgir los navios grandes: los medianos, suben hasta la ciudad con la marea, si en ello no pueden por los bajios, porque tiene tres brazas de baja mar, cuando menos. Impídeles tambien la subida la corriente del rio, que es muy arrebatada; pero navégase desde la ciudad por el rio hasta el puerto del desembarcadero de Quito, que hay veinte leguas, en balsas y barcos y botequines. Cresee el rio el invierno y anega gran parte de la tierra: entonces no se puede navegar por la madre, á causa de la gran fuerça que alli lleva la corriente: navégase por medio de los campos y cabañas, con buen tiento y noticia de la tierra, y viénese á salir muchas leguas arriba, atajándose sin riesgo y con menor trabajo.

"Estas crecientes no son de daño, antes de mucho provecho, porque pasadas, en lo anegadizo que queda fertilizado siembran el verano los indios y algunos españoles, chacarras de maiz, habas, frísoles, çapallos y otras legumbres, que procuran recojer antes que vuelva el invierno, porque si se descuidan se las lleva el rio.

"El rio Bola entra en el mar y hace puerto cerca del de la Puna.

"De algunos otros rios se hará mencion en la descripcion de los pueblos de indios por donde pasan, y se tratará de los puertos, el de la Puna y el de Santa Elena.

"Demás de los rios, hay en el distrito muchas lagunas, que llaman çienagas; resultan de las lluvias del invierno, y de las crecientes de los rios; hay algunas grandes de á legua y de á media legua, y generalmente son bajas, que las vadean los caballos y las vacas, y las más se secan el verano. Otras hay mayores, particularmente hácia los pueblos de Raba, Pimoche y Daule, y el embarcadero de Quito, que se navegan en el invierno con barcos y balsas por espacio de dos ó tres leguas, porque entonces revientan en ellas los rios y les comunican sus aguas.

"Arboles silvestres lleva la tierra; unos para madera, quales con robles, mangles, ébanos, guachapeli, salsafrás,[1] madera de m.[2] madera amarilla, madera negra; de los mangles y de los que llaman madera de m., se hacen árboles de navios: el guachapeli es muy buena madera para la fábrica de naves y galeones; de la madera amarilla se labran bufetes, sillas, bancos y otras cosas de esta suerte. Otros son frutíferos, algarrobas y otros que llaman nascoles, cuya fruta es tambien como algarroba y sirve para teñir de negro, y las que dan una fruta como almendras, que madura y se come la cáscara ó carne de fuera, y el hueso della tiene pepita dulce y se come. Otros muchos árboles silvestres hay que llevan fruta, particularmente los que llaman cereços, porque su fruta es muy semejante a las cereças de España, y es de buen gusto y sano. Las frutas destos árboles son comunes, sin ningun género de guarda ni prohibicion: sustentan con ellas en sus tiempos el ganado vacuno y de cerda.

"Los árboles mansos frutales de la tierra, que tienen en las huertas y chacaras son; nicayabales, aguacateles, cacantales, pacages, que llaman guabas, guayçuis, caymitos, palmas de cocos y de dátiles. Las frutas de la tierra son sanas en generel, y por la mayor parte frescas.

"Dánse tambien árboles frutíferos de España, parras, higueras, naranjos, limones, limas, granadas y algunas hortalizas, melones, pepinos, rábanos, lechugas, coles.

"Hay en el distrito medicinas aprobadas, mucha cantidad de buen Mechoacan; y unas raices, que llaman porte enpate, de que usan como de suelda en las quebraduras y desconciertos de huesos con muy buen efecto: tambien usan de estas raices para resolver humores frios. Otra yerba que llaman Payco, es caliente y aprovecha mucho á los resfriados; tambien hay beçares, que las sacan de los venados. Dicen que hay otros muchos generos de yerbas medicinales, con que los indios se curan, pero que no son conocidas de los españoles, ni les saben los nombres, porque aunque los indios las aplican, no quieren dar noticia dellas; cierto es que los españoles no les han apretado tanto para que los descubran, como para el oro. Tampoco saben los nombres de muchas yerbas, que dicen son conocidas por venenosas, y que hay contrayerbas muy aprobadas.

"Las semillas que se cogen en esta provincia son maiz, habas, frisoles de la tierra y de Castilla: siémbranlas quemando y roçando el monte, y en las partes que no tienen monte, y han estado cubiertas de agua sin labor ninguna, hacen por hileras á estaca hoyos en que echan la simiente, y despues si nasce yerba desyerban las chacarras. Acuden de

[1] Azafran. [2] Este nombre viene siempre en abreviatura; quizá esté por madera de marca.

veinte á treinta y hasta quarenta hanegas por una. Maiz y habas son las semillas que mejor se dan, y se cogen ventaja más que en otras partes.

"Los animales más fieros que hay son los caimanes, lagartos, en el rio, de hasta 20 y 25 pies de largo: en el monte hay leones, tigres, osos hormigueros, puercos que llaman çahinos, que son muy bravos, y tienen el ombligo en el espinazo: hay armadillos, tejones, monos y en algunas partes de la tierra, muchos venados: hállanse tambien zorras y conejos como los de España, y unas como liebres, á que llaman guardatinajas y otros animales: entre la caza cuentan á los toros, que hay muchos y muy bravos: cázanlos los indios á caballo con una vara gorda y una soga con que los enlazan, y al más bravo con más facilidad.

"Aves de la tierra diferentes que las de Europa, son gallinazos, pavas, pangias, martinetes, chubibes, guaraguas, chacotas, garrapateros; estos últimos son unos pajaros negros que tienen las colas semejantes á las picaças: las guaraguas se mantienen de culebras: las chacotas son semejantes á calandrias. Hay tambien unas aves á manera de garças, que tienen en los encuentros de las alas unas puas de hueso como las del puerco espin, y otra tal punta tambien en la cabeza: pelean entre si, hiriéndose con aquellas puas: otros géneros de aves hay semejantes á los de España, halcones, garças, tortolas, tordos, ruiseñores y algunas perdices algo mayores que las de España: cázanse destas y de otras aves, en particular las pavas, y unos patos que hay grandes y otros patillos menores, tortolas, cubibes, garças, martinetes.

"Los rios tienen gran cantidad de peseado: principalmente en el rio grande de Guayaquil se toman corbinas, sábalos, róbalos, cazones, ciegos, bagres, viejas, liças, anguillas, odis, boeaschicas. Tambien en esteros del mar que están á una, dos y tres leguas de la ciudad, se pescan cantidad de peces lizas, róbalos, lenguados, acedias, pámpanos, pargos, cazones y peces menores de los que llaman en Sevilla de media playa, y unos que llaman corcobados, que son á manera de besugos. En las lagunas del distrito se crian en abundancia unos peces que llaman de sábana y guaijas; dicen que es pescado saludable, cosa extraordinaria para peces de laguna. En el mar hay ballenas y pege espada, y algunas veces las han pescado para sacar el aceite; hay bufeos, toninas, dorados, y otros muchos géneros de peces.

"Muchas viboras y culebras venenosisimas hay en toda la tierra y sapos, pero los mosquitos se temen como el animalejo mas enfadoso y dañoso que hay en la provincia y en todas las Indias, porque siempre está picando, y asi no se puede pasar sin pabellon ó toldo.

"No hay en todo el distrito minas descubiertas de ningun metal: dicen que en unos cerros á dos ó tres leguas de Guayaquil se hallan muestras de minas de plata sobre cobre.

"En el pueblo de Colonquillo hay poços de que se saca un licor ó betun llamado copey, que es alquitran: este se saca en mucha cantidad, y se usa dél mezclándolo con brea para brear y para alquitranar la xareia: son de S. M. estos poços y rentanle quatrocientos pesos cada año.

"*En lo moral.*

"Fundóse la ciudad de Guayaquil en el año de 1534, y su fundacion no quedó hecha ni firme de una vez: porque la primera fue en la boca del rio de Babahoyo; la segunda, en el estero que llaman de Dima; la tercera, en la orilla del rio de Yeguache, que entonces se llamaba de Guayaquil; de alli se mudó la poblacion á Lominchao, que es cinco leguas de donde agora está fundada: el sitio en que agora está, se llamaba el paso de Guaynacaba, y fue Guanacaba, rey del Pirú.

"Nombran por primeros fundadores diez personas: Juan de Jaen, Lope de Acebedo, Juan Fernandez, Cristóbal de Villalta, Manuel de Estacio, Francisco de Olmos, Francisco de Valverde, Diego Martin, Enrique Diaz y un fulano Goljon.

"Trae la ciudad por escudo de armas un leon bermejo, levantado sobre los pies, y tiene en las manos una bandera y en ella una cruz travesada á manera de aspa, y debajo de la bandera un castillo: el leon está coronado, y todo ello cercado con una cadena por orla.

"Toda la ciudad tiene sesenta y una casas, las quatro dellas de posada. Tiene casas de cabildo, que son labradas de madera de roble y cubiertas con teja, y una almona, en que se labra jabon con grasa y sebo de vacas en lugar de aceite, y con la ceniza de una yerba que llaman sosa. Demás desto tiene dos arrabales, en que hay aserraderos de madera y otras tiendas en que se labra járcia para las naves, de madera de cabuya. Tambien está en el arrabal un convento de San Francisco.

"Los propios que tiene el cabildo, son tres tiendas de poco valor en propiedad, y por merced del Virey dos procuradorias de causas, la correduria de lonja y mojoneria; todo esto arrendado, renta cado año quatrocientos ó hasta quatrocientos y cincuenta ducados.

"Privilegios ni exenciones no tiene hasta agora.

"Los indios desta provincia no usan de quipos[1] ni de otro género de memoria para conservar la noticia de la antigüedad, más de la tradicion y fama de unos en otros.

"Demás de la ciudad de Puerto Viejo y sus pueblos de indios, de que se tratará de por si, tiene la ciudad de Guayaquil en su distrito propio, diez pueblos de indios, que son Yaguache, Baba, Daule, Chongon, Machala, Colonche, Colonchillo, Claudui, Pimocha, Puna.

"Los vecinos españoles y criollos que viven en la ciudad de Guayaquil, son ciento y cincuenta y dos: de estos son casados setenta y tres, la mayor parte criollos, á lo menos las mugeres son nacidas en la tierra casi todas. Hay demás destos, trece viudas y dos cadados, que tienen sus mugeres en España. Los vecinos casados son casi todos españoles, no criollos, tratantes y que están con animo de volverse á España.

"Tienen estos vecinos hijos varones ciento y doce; hijas, setenta y siete; esclavos varones, negros por la mayor parte y algunos mulatos, doscientos y diez y seis; esclavas negras y mulatas, ciento diez y siete: hay negros y mulatos horros siete, los tres casados; negras y mulatas, trece. Los vecinos solteros tienen en general pequeños caudales y muchos son pobres: los vecinos antiguos y de asiento, tienen mayores haciendas, que algunas llegan á veinte y á treinta y á quarenta mil pesos de á nueve reales: parece suman las haciendas de todos los vecinos doscientos sesenta y tres mil trescientos cincuenta pesos corrientes. En los diez pueblos de indios hay tributarios, seiscientos y cincuenta y siete; libres de tributo, reservados por ser caciques ó lisiados ó viejos mayores de cincuenta años, ciento y dieziseis; son casados, seiscientos y quarenta y siete; viudas, hay ciento y cincuenta; niños y muchachos menores de diez y ocho años, que por ser desta edad aun no pagan tributo, á que llamaremos preservados, hay quienientos y setenta y dos; niñas y muchachas, hay quatrocientas y treinta y quatro; todos estos indios se hallan en cada uno de los diez lugares en esta manera:

"En el pueblo de Yaguache, están reducidas quatro parcialidades.

"(1.) La primera, se llama de Yaguache: tiene indios tributarios, trece; reservados, tres; casados, trece; niños, ocho; niñas, siete.

"(2.) De Chadui y Guayaquil el Viejo, tributarios, veintitres; reservados, tres; casados, veinte; viudos, treinta; niños, veintiquatro; niñas, quince.

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[1] Escrituras.

"(3.) Un aillo de indios reducido, tiene: tributarios, nueve; reservados, dos; casados, ocho; niños, nueve: niñas, ocho.

"(4.) Mopenitos: tributarios, catorce; reservados, tres; casados, diez y seis; viudos, dos; niños, once; niñas, diez y seis.

"(5.) . . .[1] Tributarios, treinta; reservados, siete; casados, treinta y quatro; viudos, diez; niños, dos; niñas, veintitres.

"(6.) Payo: tributarios, cinco; reservados, dos; casados, cinco; viudos, uno; niños, siete; niñas, siete.

"(7.) Belin: tributarios, seis; reservados, uno: casados, cinco; viudos, uno; niños, ocho; niñas, cinco.

"En el pueblo de Baba, cinco parcialidades.

"1. Baba: tributarios, treinta y nueve; reservados, seis; casados, treinta y ocho; viudos, quince; niños, treinta y nueve; niñas, veinte.

"2. Puchere: tributarios, nueve; reservados, tres; casados, doce; viudos, dos; niños, nueve; niñas, seis.

"3. Macul: tributarios, diez y seis: reservados, dos: casados, doce; viudos, uno; niños, nueve; niñas, catorce.

"4. Gaure: tributarios, quatro; reservados, tres: casados, seis; viudos, dos; niños, nueve; niñas, cinco.

"5. De Puna y Quilinto: tributarios, diez y siete: reservados, tres; casados, diez y nueve; viudos, siete; niños, catorce; niñas, diez.

"En el pueblo de Daule hay tres parcialidades.

"1. Daule: tributarios, cincuenta y nueve; destos están huidos los seis; reservados, seis; casados, treinta y ocho; viudos, quince; niños, treinta y nueve; niñas, veinte.

"2. Chonona: tributarios, treinta y nueve; reservados, uno; casados, seis; niños, siete; niñas, siete.

"3. Rancho: tributarios, treinta y nueve; reservados, tres, que son el cacique y el gobernador y un indio de cincuenta y cuatro años; casados, treinta y dos; viudos, tres; niños, veinticuatro; niñas, treinta.

"En Chongon, seis parcialidades.

"1. Chongon: tributarios, cincuenta y siete: reservados, siete; casados, cincuenta y tres; viudos, doce; niños, cincuenta; niñas, treinta y seis.

"2. Raqual: esta parcialidad está dividida en dos partes, y cada una tiene su cacique.

"I. Tributarios; catorce: reservados, quatro: casados, diez y siete; viudos, tres; niños, trece; niñas, diez.

"II. Tributarios, diez y siete; reservados, dos; casados, diez y siete: viudos, dos; niños, trece; niñas, trece.

"3. Guaya: tributarios, treinta y tres; reservados, cinco; casados, treinta; viudos, ocho; niños, veintiseis; niñas, veintiuna.

"4. Villao: tributarios, cinco; reservados, dos; casados, quatro; viudos, dos; niños, trece; niñas, quatro.

"5. Cachao aillo, debajo del cacique de Villao: tributarios, quatro; casados, tres; niños, uno; niñas, una.

"6. Vaindal: tributarios, ocho; reservados, tres; casados, diez; viudos, dos; niños, cinco; niñas, once.

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[1] En blanco en el original.

"El pueblo de Machala es una parcialidad en que hay indios tributarios, nueve; reservados, quatro; casados, trece; viudos, tres; niños, once; niñas, diez y siete.

"En Colonche 1.: tributarios, veintinueve; reservados, siete; casados, trece; viudos, quatro; niños, veintiseis; niñas, catorce.

"Debajo del mismo cacique de Colonche, está Colonchillo: tiene tributarios, veintiuno; reservados, cinco; casados, diez y nueve; viudos, dos; niños, once; niñas, ocho.

"Chandiu, una parcialidad: tributarios, treinta y seis; reservados, trece; casados, quarenta; viudos, diez y nueve; niños, treinta y cinco; niñas. treinta y seis.

"Primocha 1: tributarios, quarenta y cinco; reservados, dos; casados, treinta y ocho; viudos, diez; niños, quarenta y dos; niñas, treinta y ocho.

"2. Barbahoyo, reducido en Primocha: tributarios, diez; reservados, tres; casados, cinco; viudos, tres; niños, ocho; niñas, tres.

"3. Mayan, reducido en Primocha: tributarios, diez y ocho; reservados, dos; casados, diez y seis; viudos, cinco; niños, trece; niñas, diez.

"En la Puna hay una parcialidad que tiene indios tributarios, sesenta y dos; reservados, diez y siete; casados, setenta; viudos, once; niños, catorce; niñas, catorce; de los tributarios están huidos seis.

"Paga un indio tributario á su encomendero cade año una pieza de mantas de algodon de colores, quatro celemines de maiz, dos pollos y dos gallinas. Este es el tributo ordinario en los pueblos del distrito, pero en el de Colonchillo, pagan lona y mantas de algondon que tienen diez y ocho varas y vale veinte reales; dos arrobas de pescado que valen doce reales, y veinte reales en plata, y al cacique veinte reales cada tercio.

"Los caciques son decendientes de los antiguos señores de cada lugar; agora su oficio es como de sindicos ó procuradores de la utilidad de los indios, y en esta razon los gobiernan y mandan; cuidan de que vivan quietos y en paz, y acudan á las mitas y que paguen los tributos de que son cobradores; y por este cuidado se les dan en diferentes pueblos y parcialidades pagas diferentes (todas pequeñas), conforme al número de los indios y al trabajo de la cobranza; en partes se les dan dos piezas de algodon, en otras una, y algunas media, y parte donde no les dan nada: donde quiera son reservados de pagar tributo. En Colonchillo dan al cacique sesenta reales cada año, y en Chandui diez y ocho; demás desto los indios de su cargo les siembran y cultivan las chacaras por menos jornal, dándoles de comer conforme á una ley que hay para esto dada por el Virey.

"En cada pueblo, y aun en algunos en cada parcialidad, hablan los indios lengua diferente, propia y antigua de aquel lugar; no usan lengua comun, ni la del Inga, ni otra; la que saben ya casi todos y corre en general, es la castellana.

"Las casas por la mayor parte son altas, con doblados, y cubiertas con teja; lábranlas de madera amarilla y de robre y de cañas silvestres, que las hay tales, que hacen dellas tablas de palmo y medio y de dos palmos de ancho.

"Las balsas de que usan los indios como de barcos, se labran de una madera liviana, semejante á la corcha, á que por este uso le llaman palo de balsa. Háilas mayores y menores; navegan al remo y con canaletes, y algunas también con velas.

"Hay copia de madera y materiales para aderezar navios y para labrarlos de nuevo: lábranse de ordinario de hasta quatrocientas toneladas, que no las usan mayores en aquellos mares: cuesta la labor, quando se hace á jornal, el maestro gana cien pesos al mes, y los oficiales á tres ó cuatro pesos cada dia.

"Hay en Guayaquil trece encomenderos; sus nombres y encomiendas y valor dellas y vidas porque las tienen, son los siguientes:

"Baltasar de Ocampo, tiene en primera vida los indios de Colonche y Colonchillo, y los de Guaya, reducidos, en Chongon: réntanle todos, libres de costas, seiscientos patacones.

"Pedro de Vera del Peso: los indios Chandui, por su vida, réntanle trescientos patacones: los de Puna de Villao, por dos vidas, réntanle doscientos patacones: los de Gipijapa, por dos vidas, rentanle sesenta patacones: démas desto, tiene fuera de distrito diez ó once indios tributarios en el corregimiento de Piura y Payta, y una pension de seiscientos pesos de plata ensayada en los indios de Cambaya.

"Alonso de Montalvan, tiene por su vida los indios de Machalu, que le rentan ciento treinta pesos y cien pesos de pension en los de Pinocha.

"El capitan Baltasar de Xava, los indios del Chongon, por su vida, réntanle quatrocientos cincuenta pesos.

"Martin Ramirez de Guzman, los indios de Yagual en Chongon, que rentan ciento cincuenta pesos libres, por su vida, y en el distrito de Puerto Viejo otra encomienda que le vale cien pesos, y una pension de cien pesos en los indios de Cayambe y Tomabela y Sichos.

"Estéban de Amores tiene encomendados unos indios y anguitos en la sierra, que no le pagan tributo, más de que algunas veces le hacen sus chacaras y le benefician una milpa de cacau.

"El capitan Alonso de Vargas: los indios de Daule, por una vida, réntanle ciento cincuenta pesos: los de Baba, por una vida, valen veinte pesos de á nueve reales: los de Pinocha, por dos vidas, rentan doscientos pesos.

"Cristóbal de Carranza tiene encomienda la parcialidad de Mapa en Primocha, la de Tantomo en Yaguache, la de Mopenitos en Mopenitos, por su vida; válenle todos ciento cincuenta pesos de á nueve reales, libres de costas.

"Hernando de Arnedo: los indios de Macul en Baba, por su vida, rentan trescientos pesos de á nueve reales.

"Hernando Ag. Holguin los indios de Puchere, Mança y Cacau, en los pueblos de Baba y Chongon, por dos vidas, válenle cien pesos; y en términos de Puerto Viejo los indios de Jipijapa la Alta, Pasao, Memesimbe, Manchal, Cupil y otros que dice, le valen doscientos pesos: más tiene una pension de cien pesos en los indios de Yaguache, que tiene en encomienda por dos vidas Gabriel Perdomo, y le rentan doscientos pesos de á ocho reales.

"Doña Maria de Magallanes, viuda, tiene los indios de Saueo en Daule, y los de Chadai en Yagnache por una vida: réntanle cuatrocientos pesos.

"Hieronimo Megia de Tobar, vive en Cañete en los valles de Trugillo; sirve por él la vecindad en Guayaquil Gaspar Megia; tiene encomendados los indios de Belin en Yaguache, y los de Guari en Baba, rentan. . . .[1]

"El puerto de Bui en la isla de la Puna, está poblado de indios de la Corona, esto es, tributarios á S. M.: pagan de tributo quarenta pesos cada uno.

"Los encomenderos tienen armas por obligacion; el que menos caballo, lanza y adarga y escopeta; son la gente más estimada, poderosa y rica; tienen muchos esclavos y criados.

"Algunos encomenderos ocupan en sus haciendas indios de sus encomiendas, pagándoles jornal como se conciertan.

"Los mercaderes y hombres de negocios de Guayaquil no suelen ir á emplear á España: su comercio es principalmente por mar con la ciudad de los Reyes, Panamá, Nueva España; la mercaduria que cargan y envian á estas partes en más cantidad, es madera de diversas suertes, de roble, guachapeli, amarilla, y negra de mangle, para lo qual se asierra mucha tablazon en la ciudad y en la tierra, cuyo principal fruto es la madera.

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[1] Está en blanco en el original.

Cárganse tambien las mercadurias que bajan de Quito y de Cuenca y sus comarcas, paños, cordobanes, sayales, calçados, alpargates, alforjas, sombreros, mantas de lana y de algodon, freçadas, calcetas, baquetas, bizcochos, jamones, quesos, alquitran, járcia, zarzaparrilla.

"De la ciudad de los Reyes y costa del Pirú traen los navios vino, pasas, higos, el vino es la mercaduria más ordinaria. Algunas veces quando hay falta, cargan mercadurias de España y de cobre labrado: todo viene á la Puna, y de alli pasa á Quito y Cuenca; no usan en este puerto fletar por toneladas, y llevan á los Reyes ó á Tierra Firme de seis á ocho reales por arroba. Vale la madera, una pieça, que es un quarton ó medio viga de veinticinco ó treinta y cuatro pies de roble, de madera amarilla, seis ó seite pesos de á nueve reales; la pieza de guachapeli, á quatro ó cinco pesos; la docena de tablas, á diez y seis ó hasta diez y ocho pesos.

"En la ciudad hay quatro tiendas de mercadurias de Castilla y de la tierra. De las grangerias y ocupacion de los indios se dirá en lo particular de sus pueblos; muchos dellos tratan en madera que cortan en el monte, y la bajan por los rios al puerto, donde vienen navios á comprarla. Algunos caciques tienen ganado vacuno, particularmente en Yaguache y en Daule. En cada lugar hay indios sastres, zapateros, carpinteros, torneros y de otros oficios.

"Tierras para sementeras y huertas y estancias de ganado hay sobradas; en tanta cantidad, que dicen bastarian para cien mil más indios de los que agora hay en la juridicion; asi no hay tierras en propiedad de ninguna persona, ni se venden por S. M.; cada uno elige tierra y siembra donde quiere, sin pagar terradgo ni pension alguna. Algunos españoles y caciques tienen huertas y chacaras en sitios señalados, y las poseen como propias por haberlas cultivado y las suelen repasar y vender á otros, pero por muy poco precio. Habrá en todo el distrito hasta veintidos destas chacaras de huertas, frutales y cacao en que se siembran legumbres y hortalizas y algun maiz, que sean de alguna consideracion. Ocúpanse en la labor de las chácaras más de quatrocientas personas, indios y negros por la mayor parte y algunos españoles.

"Criase en el distrito ganado vacuno y de cerda y algunas cabras; suele valer el vacuno á diez y seis reales por cabeza, y el ganado menor á ocho reales; señaladamente son las estancias que hay en todo el término treinta y cinco de ganado vacuno y nueve de cerda.

"Tambien se crian muchos caballos, pero pocos salen buenos; el mejor se vende por hasta veinte pesos de á nueve reales; mulas se han comenzado á criar de poco tiempo á esta parte.

"Esta gobernacion tiene un corregidor que reside de ordinario en la ciudad de Guayaquil y pone un teniente en la de Puerto Viejo. Hay tambien en Guayaquil dos alcaldes ordinarios y otro tribunal de por si de los oficiales reales, que son tesorero, contador, fiel executor, y tienen alguacil propio, que llaman alguacil real.

"El alguacil mayor de la gobernacion pone dos ó tres tenientes. Hay quatro escribanias, dos públicas, una del cabildo, otra de registros y despachos de navios y demás cosas pertenecientes á el juzgado de los oficiales reales. Hay un protector de los indios, y los regidores eligen cada año por suertes de cántaro el primero dia del año. De los oficios y ministros de gobierno y justicia en los pueblos de los indios se da noticia en la descripcion de Puerto Viejo.

"El corregidor y oficiales reales provee S. M. y en interin el Virey: el escribano del cabildo tiene el oficio por renunciacion de un hijo del que lo tenia por merced de S. M., pero no ha traido confirmacion; el público tiene semejante renunciacion confirmada por la

Audiencia y por S. M. El alguacil mayor tiene titulo del Virey con cargo de que haya de llevar titulo del Rey.

"El oficio de alguacil mayor vale tres mil pesos.

"La escribanía publica y del cabildo quatro mil.

"La del juzgado de oficiales reales mil quinientos.

"La otra escribanía pública dos mil.

"El salario del corregidor es mil pesos ensayados, que les paga la caja Real, y cincuenta pesos corrientes de á nueve reales que se le dan de los tributos de los indios; el tesorero tiene doscientos pesos ensayados: el contador doscientos pesos de buen oro; los alguaciles y el fiel executor no tienen salario.

"De los indios que sirven, á unos llaman mitayos, que son repartidos por el quinto; á otros yanaconas, que entran á servir por su voluntad: los que sirven en la ciudad suelen ganar diez y nueve reales al mes y de comer. Los que sirven en estancias, ganan conforme á sus personas y al género del trabajo, más ó menos; unos á doce, otros á diez y seis, á veinte, veinticuatro y veintiseis pesos corrientes cada año.

"El alquiler de un caballo son cuatro reales per dia, y a un indio que se lleva por guia se le da solamente la comida, y alguna vez dos ó quatro reales, conforme ha sido la jornada y el trabajo.

"La bebida ordinaria de los indios es chicha y pocas veces vino; de sus comidas se dirá en lo particular de cada pueblo.

"El valor ordinario de los mantenimientos de Guayaquil es: un pan de treinta onzas, un real: un quartillo de vino, cuatro reales; veintidos ó veintitres libras de vaca, un real; una libra de pasas, dos reales; una libra de higos, real y medio: una de azúcar, tres, quatro reales; de queso, un real; de velas de sebo, un real; aceitunas de la tierra, veinte ó veinticuatro, un real.

"De los mantenimientos y cosas que los faltan se proveen principalmente por mar, de Quito, de Cuenca y de los Reyes: alguna vez sale un regidor de la ciudad á comprar maiz de los pueblos de los indios, y suele comprar de diez y seis á veinte reales la hanega.

"Jabon se hace en la almona, y alguno se labra también en casas particulares. Sera todo el que se labra cada año en Guayaquil, quatrocientos quintales. Véndese el quintal de diez á doce pesos de á nueve reales.

"No hay tambos ni mesones conocidos en los pueblos de los indios; los pasageros se hospedan en las casas de los indios, y los alcaldes los proveen en lo necesario á precios moderados por arancel: doce tortillas de maiz por un real: una gallina en partes por cuatro reales, y en otros por dos; un pollo, un real, y en partes medio real; una botija de chicha, ocho reales; veinte plátanos, por un real; quarenta ó cincuenta gayavas por un real.

"La tierra es generalmente sana; hay pocas veces y pocos géneros de enfermedades: suelen dar calenturas, lo más ordinario con frio: hay algunas secas y algunas veces cámaras, pocas de sangre, y pocos mueren dellas.

"En las calenturas se recatan de sangrar, porque muchas veces vienen con ahito y resfriado, principalmente se curan con mucha dieta y con ayudas ordinarias y otras labativas de vino y agua rosada. Para las cámaras, dan una pepita que llaman de quina quina, bebida en vino ó en agua conforme á la calidad de las cámaras; de lopei ó alquitran se ponen bilmas para las enfermedades de frialdad, y tambien se curan muy bien con él las heridas de los hombres, y en las bestias.

"El tesorero tiene en su casa la caja real; no hay casa propria para tenerla; entran en ella los almojarifazgos del puerto, las alcabalas, la renta de las salinas y las de

los minerales de alquitran y del estanco de los naipes; páganse desta caja los salarios de corregidor y oficiales reales.

"Quando S. M. labra galeones ó pertrechos para ellos, se pagan de la caja por libranzas del Virey y se consume toda, y á veces no basta; entonces suple la de Lima.

"Cuando no hay fábricas, se suelen enviar desta caja á S. M. unos años con otros, de ocho á diez mil pesos.

"*Militar.*

"No hay en esta provincia indios de guerra ni çimarrones ni otros enemigos conocidos, si algunos esclavos se huyen, son fáciles de coger.

"Alzanse en la ciudad agora nueve hombres principales, capitanes y soldados viejos que saben de guerra, y tambien hay muchos vecinos de valor que en ocasiones pueden sevir a S. M.

"Los vecinos de Guayaquil y otros que residen tienen todos en general arcabuces y escopetas, espadas, dagas y alabardas, y algunos tambien tienen petos fuertes y espaldares y morriones de hierro y de acero, rodelas de palo y aceradas.

"Los encomenderos tienen demás desto, caballos, lanzas y adargas.

"No tiene S. M. en los puertos de Guayaquil galeones ni otros bajeles de guerra; suben alli del Callao en ocasiones de cosarios para llevar gente de guerra, que se conduce en aquella provincia y sus comarcanos para Chile: suben tambien por bastimentos y pertrechos para las armadas.

"El puerto de la Puna se puede fortificar haciéndole dos fuertes, uno en cada parte de las dos en que se desembarca, y un terrapleno desde los fuertes hasta la punta de los esteros y manglares, porque lo demás se halla defendido con fortificacion natural de los manglares y sus raices. Queda sola la entrada por el rio, y esta se defenderia con la artilleria de los fuertes. En ocasiones de temor de cosarios se han hecho baluartes y trincheras en las partes dichas con mucha facilidad, por la copia de madera.

"*Eclesiástico.*

"En la ciudad de Guayaquil hay quatros templos; el parroquial, que se llama la iglesia mayor, y su advocacion es de Santiago, y tres en los tres conventos de frailes, el de San Pablo en Santo Domingo, de Nuestra Señora del Soto en San Agustin, de San Francisco en su convento.

"El la iglesia parroquial hay de ordinario tres clerigos, el cura, el vicario, el capellau: el cura lleva el pié de altar, obvenciones de la administracion de sacramentos, velaciones y entierros: sirve dos capellanias fundadas en la iglesia mayor; la una de la Concepcion de Nuestra Señora. El capellan tiene las demás capellanias servideras en la misma iglesia, que son quatro; una renta cien pesos de á nueve reales, con cargo de tres misas, la una cantada; otra de cien pesos de renta, con cargo de veinte misas reçadas; otra con carga de diez misas reçadas con respouso, renta cien pesos; otra de treinta pesos con carga de veinte misas, que han instituido un vecino y su muger por su vida.

"Hay en el distrito quatro dotrinas: un clérigo dotrina los dos pueblos de Babai y Pimocha, que distan dos leguas pequeñas: al de Daule dotrina un fraile de Santo Domingo: otro de la misma órden es dotrinero de quatro pueblos, Chongon, Chandui, Colonche, Colonchillo, y reside eu su casa en Chongon. Al pueblo de la Puna dotrina un fraile de la Merced, y desde alli tambien el de Machala.

"El cura provee S. M., y en las vacantes pone servidor el obispo de Quito con aprobacion del patronazgo real; al capellan que sirve las capellanias no anejas al curato, nombra el obispo ó su provisor. Les dotrineros son nombrados: el clérigo por el obispo,

los frailes por sus prelados, el de la Merced por su convento, que está en la ciudad de los Reyes, todos con presentacion del patronazgo real.

"El curato suele valer unos años con otros de mil quatrocientos hasta mil quinientos pesos: al dotrinero de la Puna se le dan doscientos cincuenta pesos, y á los otros tres á cuatrocientos pesos cada uno cada año, sacados del cuerpo del tributo que pagan los indios de su dotrina.

"Tiene la ciudad tres conventos de frailes: uno de Dominicos, en que hay ordinario seis sacerdotes, fundóse el año de 1574: otros de Agustinos, que se fundó el año de 1593, y tiene quando más hasta tres frailes, y de ordinario uno ó dos: el de San Francisco se fundó el año de 1600, tiene dos frailes sacerdotes y un lego: todos estos monasterios se han fundado de limosnas de vecinos y pasageros. Hay en Guayaquil un hospital que fundó el cabildo de la ciudad: es agora su administrador el que se puede llamar justamente fundador, un hombre honrado, muy caritativo, con cuya asistencia y diligencia se ha hecho y se sustenta de limosnas: el obispo le adjudicó de sus diezmos diez pesos cada año: los navios que entran en el puerto, por razon de que se curan en el las maredtes, le dan cada marinero un peso, y el maestre y piloto cada uno dos pesos. Valdrá la limosna cada año de quatrocientos á quinientos pesos corrientes; cúranse en el todas enfermedades y heridas, gobiérnase muy bien y va en aumento.

"Es sujeta esta ciudad y gobernacion en lo eclesiastico al obispo, y en lo seglar á la Chancilleria de Quito.

"*Particular de los pueblos.*

"De la vecindad y parcialidades de los diez pueblos de indios que caen en el distrito de Guayaquil, se dijo arriba: agora para notica mas particular de cada lugar se advierten algunas cosas.

"Yaguache dista de la ciudad por tierra quatro leguas: habiendo de subir navegando por el rio, hay cinco. Está poblado á la orilla del rio Bulobulo, junto al camino que va de Guayaquil á Cuenca, que se sigue en el verano y se traen por el, harina, quesos, papas y frisoles. Los indios viven del trato de madera, legumbres y caza y chicha. Algunos indios hay en este pueblo que saben leer y algunos canto.

"El pueblo de Baba está á la orilla de un rio de su nombre, dos leguas antes que este entre en el grande de Guayaquil: dista de la ciudad ocho leguas. Hay muchas frutas en este lugar, y muchos de sus indios son balseros. Daule está vera de un rio caudaloso del mismo nombre, á ocho leguas de Guayaquil. Los indios son de buen talle y ingenio, tenidos por los mejores indios de aquella tierra: son labradores y balseros; siembran maiz, habas, frisoles, yucas, camotes, plátanos y otras frutas y legumbres: llevan y acomodan de mantenimientos y caballos á los pasageros que desembarcan en el puerto de Manta, y traginan las mercadurias. Algunos son vaqueros y porqueros de los ganados de Guayaquil: la tierra se anega el invierno. Hay leones, tigres, osos hormigueros, y en el rio, caimanes muy dañinos, que comen muchos indios. Tienen los indios deste lugar una cofradia, y de lo que confieren en ella, dan ornamentos en la iglesia. Hay muchos que son cantores por serlo se escusan de mita, y cantan en la iglesia sin otro salario.

"Chongon, es siete leguas de la ciudad la tierra adentro: está en tierra algo doblada; no tiene rio notable, sino algunos arroyuelos, que corren sólo el invierno; beben de poços, asi no se erian ganados. La mitad de los indios tributarios sirven de vaqueros en las estancias de los vecinos de Guayaquil; los demás son labradores de maiz y otras legumbres. Las mugeres tegen mantas de algodon de color, que llaman ropa de Guancavélica.

"Tienen muchos caballos y yeguas, que sirven de traer á Guayaquil los chasques que desembarcan en la punta de Santa Elena y les dan avio. Tienen una cofradia de Nuestra Señora en que confieren para ornamentos de la inglesia. Hay cantores y son por ello reservados de mita. Comen de ordinario carne de los venados que cazan, que hay muchos alderredor del lugar.

"Machala, está poblado doce leguas de Guayaquil, orilla de un rio que llaman de los Jubones, tres leguas del mar por el rio arriba. La tierra es montosa de muchos manglares: hay tigres y osos hormigueros: son los indios labradores de maiz y pescadores y proveen de fruta los navios que salen de la Puna. Su mayor grangeria es cortar varas de mangle, para enjaular casas y soleras de que se lleva gran cantidad á Lima.

"Colonche, dista de Guayaquil veinte y una leguas; está una legua del mar, vera de Canton, rio que lleva agua dos veces al año, dos meses cada vez; una por San Juan, y otro desde Navidad á Quaresma; con este rio riegan las huertas. Otro rio tienen tambien que llaman Banble, de que beben parte del año. La tierra tiene buen temple y valles en que se dan algunas frutas de España, uvas, membrillos, granadas, higos y muchas otras de las de la tierra. Los indios son labradores; siembran maiz, yucas, camotes y demás cosas de la tierra; no tienen ganado vacuno, sino algun poco de cerda y cabrio. Hay grandisima cantidad de venados, mayor que en otra parte de la provincia: de la carne destos se mantienen por la mayor parte: las mugeres tegen ropa con que pagan los tributos. Tienen caballos que alquilan, y con que traginan del puerto de Santa Elena á Guayaquil. Está á su cargo llevar los Chasques que vienen de Santa Elena hasta Chongon; son indios de buena condicion que agasajan y socorren amorosamente á los pasageros.

"Colonchillo está poblado en el puerto de la punta de Santa Elena, veinte y cinco leguas de Guayaquil y siete de Colonche, que es de donde se proveen de las cosas que les faltan: la tierra es estéril y sin aguas; beben de poços, especialmente de uno que llaman de los Gigantes, que segun relacion de los indios viejos, los hubo en aquella tierra, no nacidos en ella, sino venidos de otras partes. Descúbrense muchos huesos de estraña grandeza, especialmente se hallan conservados en los mineros de alquitran, de que hay pocos; llámanle copey y los indios tienen ocupacion y ganancia en el sacarlo y traginarlo. Son los indios deste lugar grandes buzos; hacen pesquerias gruesas de lizas y de otros pescados que se llevan á vender á Guayaquil, á Quito y á partes. Quando hay nuevas de enemigos en la mar, salen en sus balsas á atalayar y dan aviso en la ciudad: traen los Chasques y los pliegos, y meten los navíos en el puerto.

"Este puerto de Santa Elena, llamado asi, es puerto de costa, que solo le repara una punta á la parte de barlovento, que es el Sur: por sotavento es ensenada, que sino es de la mar, no tiene viente que le haga perjuicio. Es puerto desabrigado, y muy sujeto á tres vientos, Sudoeste, Leste, Norueste. Surgen los navios á una otava ó décima parte de legua de la tierra. El pueblo de Chandui está junto al mar; su temple y las ocupaciones y grangerias de los indios, son del todo semejantes á los de Colonchillo: tienen tambien grangeria de yeguas, de que crian buenos caballos.

"Pimocha es en el camino que vá de Guayaquil á el desembarcadero de Quito, en la mitad del camino, diez leguas de cada parte, en las orillas del rio grande. Los indios tienen algunas estancias de vacas y puercos y grangeria de la madera de roble que cortan y se carga para Lima; pero su principal ocupacion y ganancia es traginar la sal, vino y pescado de la tierra, y las mercaderias de Castilla hasta el desembarcadero, en donde indios, que para esto bajan de la sierra, las cargan en caballos y las llevan á Quito. En el desembarcadero tienen los de Pimocha otra poblacion donde los pasageros que van por el rio toman refresco: el tragin es grandisimo en este embarcadero y desembarcadero de las

mereadurias y gente que suben y bajan por el rio, yendo y viniendo de España, Tierra Firme, Méjico, Chiva y todo el Perú, que pagan los derechos en Guayaquil como en puerto. Juntamente los indios hacen sus chacarras de maiz y legumbres y tienen cofradia para conferir en ella los ornamentos de su iglesia.

"La isla y el pueblo que está en ella, se llaman Puna, y su puerto de Bui: tiene la isla de punta á punta poco más de diez leguas de largo y ocho de ancho: es tierra montosa y de poca agua; sólo hay dos poços de que beben y de que hacen aguadas para los navios.

"Hay poca cria de ganado vacuno y de algunos caballos; venados en abundaneia, de cuya carne se mantienen los naturales, pero principalmente de pescado: algunos siembran chacarras de maiz y de otras semillas y legumbres, pero en general son todos pescadores: venden el pescado en Guayaquil; á y los navios que vienen al puerto, sirven de chasques acudiendo con sus balsas á el despacho de los navios de S. M. y á los de particulares. Van á Tumbez, primero pueblo del corrigimiento de Payta, que dista veinte leguas por mar, á descargar los navios y llevar las mercaderias á Guayaquil en sus barcos y balsas: tienen tambien á su cargo el puerto de Bola, que es tres leguas de la Puna; alli bajan los serranos de Cuenca con harinas y otros mantenimientos para Guayaquil y bizcocho para los navios: estas cosas cargan en sus balsas los de Puna, y las traen el rio abajo de Bola, que saliendó dél, le quedan tres leguas de traviesa hasta su isla, y siete á Guayaquil: por este despacho que dan á los navios, son reservados de mita.

"El rumbo que demora á la entrada del puerto de Puna, dicho de Bui, es Nordeste, Sudueste entrando de fuera al Nordeste.

"Surgen las naves á proas en tierra, y pueden surgir quantos y qualesquiera navios por muchos y muy grandes que sean en este, y en el puerto de Santa Elena; pero serán los navios que entran y salen cada año hasta treinta, y no tiene la costa de aquel mar correspondencia que pueda perjudicar á estos dos puertos. Entre la jurisdicion de Guayaquil y la del pueblo de Chimbo, que es de la de Quito, en la tierra hay unos indios llamados yangutos, que son hasta diez y ocho; están encomendados, pero por que suelen huir la tierra adentro y pocas veces pagan tributo y poco, no se hace dellos mencion más partieular."— pp. 247–276.

The following document, written during the years 1573–74, also has interesting information about this region. It is contained in the "Relacion General de las Poblaciones Españolas del Peru hecha por el Licenciado Salazar de Villasante," published in the great work edited by Jimenez de la Espada, Relaciones Geograficas de Indias, Tomo I.

"GUAYAQUIL.—LA PUNA.

"Desde este puerto de *Paita*, yendo por la mar, hay á la cindad de *Santiago de Guayaquil*, sesenta leguas, y seis leguas ántes de llegar á *Guayaquil*, está la isla de *La Puna*, á do surgen los naviós grandes, y los pequeños allegan á surgir á *Guayaquil* junto á las casas, en el rio. No suben los grandes, por ciertos bajos que tiene el rio do suben. Desde la isla de *La Puna* á la boca del rio hay dos leguas, y de la boca á *Guayaquil* cuatro.

"En está isla esta por caeique un indio que se llama don Diego Tomalá, muy ladino y sabio y que hace muy buen tratamiento á los españoles que allí aportan, dándoles mantenimiento de balde y hospedándoles. Es buen cristiano, y tiene sólo un hijo, buen cristiano, que se llama don Francisco Tomalá; sabe leer, y contar, y escribir, y música, y cantar canto llano y de órgano, y es buen ginete; dejalle ha más de cient mill pesos de hacienda en oro y ganado.

"Aquella isla será de ocho leguas en largo y tres en ancho. Hay en ella cinco lugares de indios. Junto al puerto de aquella isla está un lugarcillo de hasta cincuenta indios y venden aves y pescado maíz á los naviós, que es su trato (a). Y tambien hacen allí los indios unas cuentas tan menudas como mostaza, que se llama *chaquira* de oro, que es muy preciado (*así*), y no hay español que lo sepa hacer, platero, sino ello (*así*), ni quien lo pueda ensartar sino sus mujeres; y hácenlo con pedernales y echados de buzos (bruces) en el suelo, que quien no lo ha visto hacer, no lo creerá que cosa tan delicada y bien hecha se haga con guijas y no con martillo de hierro.

"Hay en esta isla mucho ganado de ovejas y cabras de los indios; hay muchos venados (b); dánse muy ricos melones de Castilla y otra mucha fruta de la tierra. En esta isla se hace mucha jarcia que hace el cacique y sus indios para los navíos que por allí pasan y áun lo envian á vender á *Tierra Firme* y á la ciudad de *Los Reyes;* y se corta allí madera para llevar á *Los Reyes* (c).

"El hijo deste (cacique) me importunó mucho que le trujese á España, para ver á Su Magestad y su potencia, que es muy curioso de saber y avisado, y el padre y el se tractan en él vistir como españoles, excepto la madre y mujer, que se viste como india; y el padre, como no tiene otro, no le dejó venir; y son muy servidores de Su Magestad más que otros indios que yo haya visto, y cada vez que nombran á Su Magestad ó le oyen nombrar, se quitan la gorra al nombre (d).

"Esta ciudad de *Guayaquil* está cuatro leguas de la mar el rio arriba, que se llama el rio *Guayaquil*, y ansí se nombra la ciudad *Santiago de Guayaquil*, por el rio. Habrá veinte y cinco casas con sus moradores, y los catorce son señores de indios. Hay sola una iglesia y un hospital, porque el monesterio está en la isla de la *Pugna* (*asi* por *Puna*), que es de mercenarios, junto al puerto de la isla, á do acuden los indios de aquel puerto; y el comendador deste monesterio anda por la isla doctrinándoles de pueblo y diciéndoles misa en sus iglesias (e).

"Esta ciudad de *Guayaquil* es muy cálida, tanto como *Tierra Firme*, y enferma, especial los veranos. Aquí llueve mucho más que en España; hace grandes truenos. Está asentada en una serrezuela, porque los llanos todos se anegan (f). No se da en ella ni en treinta leguas hácia *Quito* trigo, ni por la otra parte, riberas de la mar, hasta *Puerto Viejo*, ni en *Puerto Viejo*, que hay cincuenta leguas; todo lo que se come, ansí españoles como

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(a) El pueblo y su puerto se llamaban de *Buí*; el puerto se mudo despues más el E., y tome ól nombre de *La Puná*, que hoy conserva.

(b) Probablemente los *Cervus nemorivagus y* rufus; hoy deben estar ya extinguidos, como la antigua riqueza, poblacion y fertilidad de la isla.

(c) La jarcia era *cabuya*, fibra del *Agave tuberosa;* y la madera de mangle, *Rizophora Mangle*. Hoy no se saca de ella ese provecho, sino el de su corteza como curtiente.

(d) Una description de la isla de *La Puná* y de su curaca, muy semejante á ésta, hace Vargas Machuca en sus *Apologías y discursos de las Conquistas Occidentales*, escritos en 1612.

López de Caravántes (l. c.) recuerda que don Francisco Pizarro y sus compañeros llamaron á esta isla de *Santiago*, y que en ella hicieron la primera fundicion de oro recogido hasta entónces en la tierra de su conquista, juntando el rescatado allí con el ganado ántes en el pueblo de Coaques, el 1. de enero de 1532; cúpole á S. M. por su real quinto 1.054.929 mrs., y del resto cobraron sus primeros salarios el gobernador Pizarro y los oficiales reales.

(e) En el año de 1605 doctrinaba los indios de *La Puná*, reducidos sólo al pueblo y puerto de *Buí*, nada más que un fraile de la Merced; y era lo curioso, que este doctrinero procedia del convento de *Lima*, siendo así que estaba á pocas leguas de su doctrina el de *Puerto Viejo*.

(f) Es de advertir, que la ciudad de *Santiago de Guayaquil* ha tenido varios asientos: el primero, en el año de 1534, se lo dio Sebastian de Belalcázar en la boca del gran afluente del *Guayaquil*, llamado rio de *Babahoyo*; el segundo fue en el estero de *Dima*; el tercero en la orilla del *Yaguachi*, que entónces se llamaba Guayaquil; de allí se mudó a *Lominchao*, que es á cinco leguas de donde ahora está fundada; y, por último, se fijó en la que hoy se llama *Ciudad vieja* en las faldas y al pié del cerrillo de Santa Ana y de allí hasta la calle de la Merced; sitio que se llamó primitavamente el *Paso de Huaina Capac*, por haberlo verificado por allí este inca en sus conquistas de los guancavilcas y otras naciones de aquélla costa, á los comienzos del siglo XVI.

indios, es maíz hecho tortillas. La granjería que aquí se tiene, los señores de indios, es comer de los tributos que les dan, que son ropas, que venden, y maíz y aves; que dinero, como no lo hay, oro ni plata, dan poco. Los demás tratan en hacer navíos, como hay allí buena madera, y tambien algunos tratan en cortar madera y tablazon para enviar á *Los Reyes* por mar. Hay mucha caza de venado y pavas campesinas (a); hay mucho ganado vacuno, mas no se cria el ovejuno, que se muere todo del gran vicio de la yerba, como llueve tanto.

"Desde *Guayaquil* para ir á la ciudad de *Quito* (que yendo por mar de *Los Reyes* es aquel el camino), van por el rio arriba diez y nueve leguas hasta *El Desembarcadero*.

"Este rio, desde la boca, que entra en la mar, hasta seis leguas arriba, que son dos leguas arriba de la ciudad de *Santiago de Guayaquil*, va de ancho de media legua y de tres cuartos por partes; desde las seis leguas adelante va enangostando, y cuando subimos hasta *El Desembarcadero*, va tan angosto como una calle de esta villa (b) y áun ménos. Esto lo causa, lo uno, que hasta do llega la marea de la mar, ensancha; lo otro, que como entran en este rio otros muchos, mientras más subimos á su nacimiento, va dejando los otros rios.

"El agua deste rio es la mejor que hay en las Indias y entiendo que en le mundo, y si se beben un cántaro de agua, no se siente de la gran delgadeza della (c).

"Esto es de su natural, mas allende desto, le acompañan y ayudan otras accidencias que la hacen mejor: lo uno, que viene siempre por la zarzaparrilla y de un cabo y de otro de las riberas es todo zarzaparrilla muy mejor que la de la *Nueva Espana*, y en gran cantidad; de manera que todos los navíos que cargan en *Guayaquil*, cargan della para *Los Reyes* y para *Tierra Firme*; y yo lo he visto todo esto por vista de ojos. Lo otro, que viene el rio por metales de oro y los demás rios que entran en él; y estando yo por gobernador de aquella provincia (porque entra en el gobierno de *Quito*), descubrió unas minas de oro un vecino de *Guayaquil*, que se llama Carranza (d), junto á este rio, de oro fino, y á mí me envió luego la muestra á *Quito*.

"Está tan tenida esta agua deste rio, que todos los que se quieren curar de las bubas en todo el *Piru*, se vienen a *Guayaquil*, por amor del agua venir por zarzaparrilla, que sólo el agua les sana sin sudores, y en bebiéndola, se alanza luego por los poros y alimpia el cuerpo, y quien allí toma la zarzaparrilla con sudores sana muy más presto, al doble que los que beben el agua simple. Y yo he visto venir á se curar de las bubas de seiscientas leguas que están *Los Charcas*; y viendo esto los vecinos de *Guayaquil*, hicieron un hospital en la ciudad para los pobres que se vienen á curar de aquel mal, aunque está pobre y seria gran caridad que Su Magestad le socorriese con algo de su caja; y áun tambien, como es puerto, enferman allí marineros pobres y se van á él y no son bien curados por la necesidad que tiene.

"Por este rio arriba hasta El *Desembarcadero* (e), que hay diez y nueve leguas, se va en unas que llaman balsas, en lugar de barcos, y son como palos grandes atados uno con otro, ni más ni ménos que la escalera de una carreta, digo como una carreta quitadas las ruedas, salvo que van los palos juntos: el de en medio es más largo y es la proa de la balsa, en la cabeza del cual va siempre gobernando un indio, y á los lados van cada tres, ó cada dos ó cada cinco indios, segun son las balsas y la carga que llevan; porque

(a) Especies de los géneros *Penelope* y *Crax*.

(b) Indudablemente la de Madrid.

(c) Creo que el lector, aunque no la haya bebido, como yo, dudará mucho de tan extraña sutileza.

(d) Martin de Carranza, padre probablemente de Cristóbal de Carranza, vecino de *Guayaquil* en 1605, y encondero de los Indios de *Mapa* en *Pimocha*; *Tantomo*, en *Yaguachi* y *Mopenitos*, todos del término de esa ciudad.

(e) Hoy en dia son dos: uno, cuando el rio no rebasa su cauca normal del verano, en el pueblo llamado *Bodegas de Babayoho*; otro, en invierno, en el punto llamado *Sabaneta*, casi en las faldas de la sierra.

algunas son de siete palos, y de aquí no suben; van llanas por el agua, que algunas veces las baña el agua, y los regalados y gente de respeto hacen poner unas tablas sobre unos palos atravesados, y allí van echados. Otras veces hacen poner á los lados unas estacas y atravesados palos como las varas de carreta, por si llevan niños no caigan en el agua; y ansí subí yo con mi mujer y hijos; y por el sol hacen un dejadillo de paja, de manera que cuando esta balsa va ansí, parece una choza de pastores (a).

"Es de ver, cierto, los indios que las llevan lo que trabajan, porque se tardan tres dias en subir hasta *El Desembarcadero* desde la ciudad de *Guayaquil*, en los cuales no duermen ni descansan, sino es cuando a llegan algun lugar de los que estan á la ribera, que paran para comer y surgen al orilla y luego tornan á remar; y áun algunos crueles españoles no les dejan hacer esto, sino que remando les hacen que coman, porque allí en las balsas se llevan las comidas y lo mismo, los españoles, y allí comen. Con todo esto, van siempre cantando en su lengua y haciendo grandes regocijos: van desnudos, en cueros, sólo con sus pañetes.

"En este rio, desde la ciudad hasta *El Desembarcadero*, hay tantos lagartos, que cubren el agua; son de á cuatro y cinco y seis varas, algunos, de largo; muy gruesos; los brazos tienen tan récios como lebreles, aunque no son tan largos; las cabezas como novillos grandes; una boca que cabe una cabeza de hombre; tienen los dientes como dientes de sierra y los de arriba no vienen iguales con los de abajo, sino que encajan los unos entremedias de otros; de la quijada de abajo suben dos colmillos como de puerco javalin, que pasan por dos agujeros que la naturaleza les dio por la quijada alta, hácia el hocico, cosa de ver (b).

"Estos se llaman *caimanes*. Algunas veces acaesce estar descuidado el indio que va remando, y más si es de noche, y trabar dél y metelle y comérsele. Para le comer, tienen este instincto natural: que primero le ahogan y luego le sacan al orilla y allí se le comen, porque no le pueden mascar en el agua; y áun si algunos indios se quedan durmiendo á la orilla, salen del agua y le arrebatan y métenle en el rio y le ahogan, y ahogado, le tornan á sacar y se le comen; ó si andan nadando en el rio, que pocas veces se atreven á madar en este rio por este miedo, si no es de dia, que los ven venir y huyen.

"Yo he muerto con el arcabuz destos desde la balsa. Y otras veces se salen á la orilla á sestear y están durmiendo y los he tirado y muerto. Y ansí, como quien los ha histo y abierto las bocas, pongo las particularidades dellos.

"Estos *caimanes* tienen dos cosas de provecho: la una, el buche dellos seco, molido, con vino es cosa medicinal para la hijada, y cosa ya probada. Alcanzóse esta esperiencia dellos, porque abriéndoles el buche, les hallan piedras en él, unas recien tragadas, otras que se le van deshaciendo, y es señal de gran calor, y ansi de aquí se entendió ser bueno su buche para el hijada y la piedra y se ve cada dia el efecto. Tienen otra cosa, y es, que de los sobacos, debajo de los brazos, les sacan cierto unto, el cual huele á la más fina

(a) Descripcion tan exacto como pintoresca, aunque hoy hacen aquéllas chozas más pulidas, aireadas y con sus piezas aparte y corredores. Olvidósele decir á Vallasaute, que para ir y volver de *Guayaquil* á otros puntos ribereños, así de su rio como de los grandes afluentes, ahorran fuerza de brazos los balseros, sirviéndose á su conveniencia de la vaciante y de la hinchiente, que se dejan sentir con viveza en el *Guayaquil* ó *Guayas*. Hoy en dia forman muchas balsas, reunidas y atracadas al muelle de la ciudad, un mercado, y a veces un barrio flotante. Cosa igual sucede en *Babahoyo*.

(b) Nuestro magistrado era buen observador. Justamente el caracter de esos dieutes que atraviesan la maxila, es el que distingue al género *Alligator* ó *Champsa* moderno, de los cocodrilos verdaderos, que viven tambien en América y en *Guayaquil*. Todas las demás particularidades y costumbres que en ellos notó son asimismo exactisimas, salvo lo de la finura del olor de las glándulas axilares, porque no es tal, sino muy fastidioso y hasta repulsivo; y lo de las piedras, que no se consumen de los humores dijestivos, sino de frotarse unas contra otras, al ayudar á la trituracion de la presa, que el animal engulle entera, y del mismo modo, aunque más groseramente, y por la misma causa, que los granillos de arena en la molleja de las gallinas. La especie que aqui se describe es el *Alligator latirrostris*.

algalia del mundo, y este unto se adoba y pasa por algalia finísima por más de un año, aunque con el tiempo va perdiendo el oror (olor), hasta que más andando se pierde todo.

"En *Tierra Firme* hay algunos destos en la mar, y posando yo en una casa junto á la combatiente el de la mar, vi entrar un buey, que llevaban para matar á la cerneceria, en la mar, y arremietó un *caiman* destos y le ase de una pierna y le mete más adentro y le ahogó y no paresció más; para que se entienda la fuerza destos. Y lo mismo ví, agora, cuando por allí pasé, con una ternera que llevaban á un navío del obispo de *Quito*, que le arrebató otro *caiman* del orilla y no paresció más.

"Desembareando en *El Desembarcadero*, hay una venta á do la gente reposa y espera cabalgaduras que vengan por ellos de hácia *Quito*, y reeueros para llevar las mercaderias hasta Quito, las euales hasta allí se suben por el rio arriba en las dichas balsas.

"Aquella venta arrienda la ciudad de *Guayaquil* en quinientos pesos, y está en ella un español por ventero; y á cuatro años se enriquecen.

"Este desembarcadero es el más mal paraje de todo el camino; lo uno por ser calidísimo asiento y á esta causa es enfermo, y por maravilla pasa por él hombre ni muger que no le dé luego ealenturas recísimas; lo que procuran, especial quien tiene luego recaudo de bestias, es, en llegando, pasar adelante, porque andando eineo leguas, luego entra el frio. Es tambien malo, porque hay tanto mosquito zancudo y de otros pequeños, que aun son peores, que matan la gente á picadas y áun les hinchan las carnes y les da grandes dolores como cosa venenosa; y á mí me acaesció (a). Y ansi, para repararse destos, especial para haber de dormir allí alguna noche, se llevan unos toldos y dentro la cama se encierran, que no entren mosquitos; y á los que no los llevan, se los alquila el ventero, que tiene muchos para este fin.

"Desde este desembarcadero á la puente del dicho rio, camino de *Quito*, hay dos leguas, todo de cienagas bellacas y grandes montañas.

"Desde esta puente hasta un lugarcillo de indios que se llama *Guapo* hay tres leguas peores que las dos de hasta la puente, de grandísimas montañas, y sierra, y mal camino y pantanos.

"Desde *Guapo* á otro lugar camino de Quito, que se llama *Chimbo* (b), hay siete leguas, algo mejor camino, aunque bellaco.

"Este pueblo es de un vecino de *Quito* que se llama Juan de Larrea; será de doscientos indios casados; en él hay una buena iglesia en que está el eura, y la casa del cura pegada con la iglesia. Es lugar fresco, y hace frio en él, porque desde *Guapo*, el lugar antes dél, empieza á resfriar y empieza la provincia de *Quito*, que es serranía: y por esto se llama sierra toda la provincia de *Quito*, que siempre hace frio, aunque no para que sea menester llegarse á calentar.

"En este pueblo se dá mucho trigo y maíz, porque en Guayaquil ni hasta él no se dá sino maíz.

"Hay aquí buenas aguas de rio y fuentes.

"En este pueblo han hecho los indios un obraje de paños bajos y de frazadas, cosa muy util, con industria que les dió un español del oficio. Hay cient tornos cada dia que hilan indias dentro de una casa, y muy muchos telares. Yo los ví y visité. Las frezadas que se hacen allí son mucho mejores que las de Mondéjar y Palencia y muy mayores, finísimas, que parecen de felpa. De la ganancia de este obraje pagan los indios sus tributos á su encomendero.

(a) Y á mi tambien, y le acaecerá áun hoy dia a todo viajero que por alli pase, pues lo de los mosquitos y los toldos y todas las demás desdichas de aquel camino permanecen como en los tiempos de Salazar.

(b) *San Miguel de Chimbo*, asiento fundado el año de 1534 por Sebastian de Belalcázar, conquistador de *Quito*.

"Desde este lugar hay otras siete leguas á un asiento, camino de *Quito*, que se llama *Riobamba*. Llámase *Riobamba* que quiere decir en su lengua *campo llano* (a), y así, desde aqueste asiento empieza la tierra llana hasta *Quito*, que hay veinte y cinco leguas. Cerca deste asiento están unos lugarejos de indios encomendados en vecinos de *Quito*, los cuales acuden á una iglesia que está en este asiento, á oir misa y á la doctrina, que está aquí un cura clérigo; y en este asiento estan los *tambos reales*, que son ventas para la gente pasajera y arrieros, porque por aquí pasan todos los que van á *Los Reyes* por mar y por tierra; y en este lugar se aparta el camino de los que quieren ir por tierra y el camino de los que quieren ir por mar á Guayaquil (á) embarcarse; y asimismo, los que vienen del *Piru* para *Quito* y el *Nuevo Reyno*, todos pasan por este asiento.

"En este asiento se da mucho trigoy maíz y hay un molino muy bueno en un rio (b) á do se muele mucha harina; y algunos españoles que están en este asiento, tienen granjerías de haeer mucho bizcocho y enviarlo á *Santiago de Guayaquil*, para vender á los navíos; y áun tambien lo envian á *Tierra Firme*, para provision del armada que viene á España y de los navíos que van á *Los Reyes*; y es muy lindo bizcocho.

"Tambien en este asiento hacen los indios jarcia para navíos y muchos alpargates y sogas y jáquimas y cabestros, y los envian á vender á *Tierra Firme*. Hacen esta jarcia de lo que se hace la que dije que se hacia en la isla de la *Pugna* (*asi*), que es de una yerba que naturalmente nace en el eampo sin beneficio, que se llama *cabuya*; es á manera de un cardo de comer, y de la raíz echa unas pecas (*asi*, por pencas), salvo que son grandes como un brazo y anchas como cuatro dedos; estas pencas cortan y las curan, y despues, sacudidas como el cáñamo, quedan ni más ni ménos quel cáñamo y tan recio. Esta yerba es provechosa para otras cosas, que della hacen hilo tan delgado como de lino, para coser, y tan recio. Desta yerba, de unas puas que tienen (*asi*), hacen los indios agujas para coser, haciéndolas sus agujeros en que entra el hilo. Desta yerba hacen un brebaje para beber, y de aquel brebaje se torna vinagre para comer; y áun hacen della como una agua micl, que comen. Del cogollo desta yerba sale un palo largo de veinte pies y menores, segun les dejan crecer, que hacen easas dellos los indios y les sirven de maderos, y encima los cubren con paja, que llaman á este palo ellos *maguey* (c). Son fofos, como son de yerba, de la calidad de la cañaeja ó junco marino, salvo que son gordos como un recio brazo de un hombre.

"Antes que se llega á este lugar viniendo del *Desembareadero*, se pasa un puerto una legua antes, que es una sierra adonde cuantos pasan se marean como en navío. Cáusalo, como vienen de la tierra caliente y allí hace frio, sicnte mudanza el cuerpo, y el cstómago revuélvese de manera que se marean y vomitan la cólera. Acabado de pasar, quedan buenos; y ansí me acaeció á mí y mi gente (d).

(a) Y algo más; porque sólo *bamba* ó *pampa* significa campo llano o planicie, y falta la traduccion de *rio*, que es *ric* corrompido, y vale *el que vá*, *el que marcha*.

En esta poblacion, antigua capital de los *Puruaes*, se fundó la primera ciudad de españoles el año de 1534, por don Diego de Almagro, con el nombre de *Santiago de Riobamba* ó de *Quito*; mudóse al poco tiempo al asiento de *Quito*, por Sebastian de Belalcázar, confirmada con la advocacion de San Francisco. En tiempo del virrey del *Perú* conde del Villar Don Pardo, se llamó villa de ese título, que conservó pocos años, cambiándolo definitivamente por el de San Pedro de Riobamba, á pesar de habérsele querido imponer desde la emancipacion de aquella provincia, el nombre de *Ciudad Bolivar*. El asiento que Villasante describe es el antiguo, que corresponde hoy a los pueblos de *Zicalpa y Caxabamba*.

(b) *El San Juan*.

(c) No podian los indios llamarle asi en su lenguaje, porque *maguey* es voz de otro muy diferente, y corresponde al *Agave mexicana*. Seria importada, y la aplicarian caprichosamente á la vara ó escapo de la pita de su tierra, que ya dijimos que es una especia diferente, el *Agave tuberosa*, vulgarmente *cabuya*. El nombre de esa vara ó tallo en quichua es *chuqui*.

(d) El marearse, *asorocharse* ó *chumarse* depende, no de la causa que indica Salazar de Villasante, sino de la rarefaccion atmosférica propia de las grandes alturas de las regiones transitables de la cordillera andina.

"Desde este pueblo ó asiento de *Riobamba*, van á otro pueblo de indios, dos leguas, que llaman *Luisa* (a).

"Desde este, a otro de indios que llaman *Mocho* (*asi*, por *Mocha*).

"Desde este, á otro que llaman *Ambato*, siete leguas.

"Desde este, á otro que llaman *El Atacunga* tambien de indios. En este pueblo de Latacunga (b) está un monesterio de frailes franciscos que tienen cargo de la doctrina de los indios y administrar los Saeramentos.

"Desde este hay cuatro leguas á otro pueblo de indios que llaman *Mulahaló*.

"Desde este á otro que llaman *Pancaleo* (c), de indios, hay otras cuatro leguas.

"Desde *Riobamba* hasta este pueblo y hasta *Quito*, que está cinco leguas, no se coge ni se da trigo, sino maíz; y cáusalo, que entre *Riobamba* y *Quito* es todo un páramo muy frio y no se coge, y si empieza á nacer, luego se yela, porque está junto á todos estos lugares una sierra nevada todo el año, que se llama de volcan de *Linisa* (d), á de se dice que en la cumbre está un ofrescimiento de indios á sus ídolos, de mucho oro y plata, de más de un millon, que ofrescian ántes que españoles entrasen en la tierra. Y un indio señor, muy amigo, me dijo esto, y áun me dijo, siendo yo allí gobernador, que le diese licencia para subir á la sierra con doscientos indios y lo sacaria, y que eran menester para ir haciendo camino y otros hogueras para recibir calor y que se derritiese la nieve por do se fuese pasando. No me atreví á darle licencia, porque no se muriesen algunos indios y me lo imputasen á mí. Creo que dice verdad, que es indio verdadero y que me quiere mucho (e)." pp. 9–18.

The following from Oviedo contains some important notices concerning Puna, and also information regarding Manabi. Oviedo writes:

"Passadas las çient leguas de la costa de Anegadiços é llegandose á la equinoçial, hay mucho diferençia en la tierra, porque no hay manglares; pero es tierra montuosa, é los árboles son çeybas. Hay algodonales monteses de mançanillos de la malissima hierba é otros árboles, é toda la costa de la mar barraneas blancas é muy altas: es tierra enferma, é hay yuca é axes é las otras fructas que en la Tierra-Firme de Castilla del Oro. Los indios traen camisetas cortes é sus vergüenças de fuera: las mugeres nagua ó mantas de la çinta abaxo, como en Castilla del Oro. Tienen é traen oro é plata en joyas é çarcillos é en las nariçes: el cabello traen como los indios coronados de la costa de Sancta Marte é del rio Grande.

"Hánse hallado en aquella tierra muchas é buenas turquesas y esmeraldas: é las esmeraldas se crian en guijarros é piedras como marmoleñas, pero lo blanco más claro quel mármol é no trasparente en las enterioras de tales piedras, porque se ha visto esmeralda acabada de sacar del guijarro, y es de una parte esmeralda é de la otra guijarro claro ó

(a) Así se lee el nombre de este lugar en todos los documentos del siglo XVI, y que, á mi parecer, corresponde al pueblo *purua* de *Lican*, variado en *Liçan*, *Liça*, *Luiça*, *Luisa*.

(b) Estas dos formas viciosas son del nombre indígena *Llactacunga*.

(c) *Pançalco* ó *Panzaleo*, en otros autores, que creo es la ortografía propia de este nombre.

(d) Hoy *Ilinisa* ó *Iliniza*.

"(e) Aunque las condiciones del camino del *Desembarcadero* á *Quito* eran las mismas del tiempo de nuestro oidor, cuando yo lo hice por los años de 1864, sin embargo, las *pascanas* ó têrminos de jornada, que son unas para el que vá *escotero* y otras para el que vá cuidando de cargas, han variado bastante, así como la direccion de la ruta. Actualmente, por lo ménos en dicho año de 64, se hace, ó puede hacer posada, despues de *Bodegas de Babahoyo*, en *La Mona*, *Palo-largo*, *Schaneta*, *La Ceiba* (subiendo ya la sierra por la empinada cuesta de *Angas*), *El Jorge*, *Camino-Real* (al fin de la cuesta), *La Chima*, *San Miguel de Chimbo*, *San José de Chimbo*, *Guaranda*, *Tambo del Ensillado* (subido el *pongo del Chimborazo*), *Chuquipoçguio*, *Mocha*, *Hambato*, *Latacunga*, *Mulahaló* y *Machachi*. El camino que siguió Villasante de *Chimbo* á *Mocha*, daba y dá, porque aún se sigue por algunos, un rodeo para posar por *Riobamba*, situado muy a la derecha: el que yo tomé es más corto, y faldea el magestuoso nevado de *Chimborazo*. Este trayecto debió preferirse al antiguo y primitivo, desde que *Guaranda* se hizo asiento de españoles y adquirió importancia.

trasparente. Pero aunque se han avido algunas piedras destas esmeraldas de mucho valor é otras muchas de medianos presçios, no se ha hallado en esta gobernaçion el nasçimiento, é los indios lo tienen secreto.

"Hay muchos lagartos de los grandes ó cocatriçes en los rios, é son muy dañosos.

"En aquella tierra sacrifican indios muchachos é mugeres; é desollados, los cueros los hinchen de paja é los ponen cruçificados dentro en los templos. Adoran unos ydolos quassi de hechura de cabrones, negros: é aquestos ponenlosençima de unos altares baxos, dos dellos en cada templo, é alli les dan çiertos sahumerios é los sirven.

"En aquella tierra quassi todos los españoles que en ella están, de un mes arriba crian unas berrugas suçias é grandes, que á algunos les salen en la cara é á otros en el cuerpo, é huelen mal, é si revientan se desangran por ellas é aun peligran algunos, assi en Puerto Viejo como en otras partes de la tierra. En aquella tierra de Puerto Viejo es tierra rasa é de pocos montes, é arde mucho el sol en ella y es algo enferma. Todos los más indios que habitan en la costa son sodomitas abominables, é usan con los muchachos, é los traen é andan ellos muy enchaquirados é ornados de sartales con muchas joyuelas de oro. Tractan mal las mugeres: ellos visten çamisetas cortas é las vergüenças de fuera. Comen tortillas de mahiz y el pescado crudo, é lo mas que alli hay son bonitos, é créese que de aquel pescado proceden las berrugas ques dicho á los que comen esse pescado.

"Por aquella tierra adoran unas ymágines de sierpes muy grandes, é tambien de cabrones é de tiburones: tienen ymágines destas cosas, en que adoran, como es dicho.

"Hay por alli poca agua, é beben de poços, que en toda aquella costa, desde que comiença á se allegar á buena tierra hasta Tumbez, no se hallan sino tres rios caudales, ques uno la bahia de Sanct Matheo, é otro el de Caraque. é otro el de la Puna.

"Tornando á contar desta tierra de Puerto Viejo, la tierra adentro haçia la parte del Leste, prolongándola por debaxo de la linia ó çerca della, va toda la tierra llana de pocos montes (quiero deçir sierras) porque toda ella va de muchas arboledas: es tierra rica de oro é plata. Quando don Pedro de Alvarao entró por alli la via de Quito halló tanta falta de agua, que peresçiera su gente si no hallarán unas cañaverales de las cañas gordas de Castilla del Oro, que cortándolas las hallaron llenas de agua, de que bebieron las gentes é los caballos. Cerca desta tierra le llovio al dicho Alvaraeo dos dias tierra bermeja, lo qual ovieron por mal pronostico: é tal le subçedió, porque al passar un puerto de nieve adelante le quedaron helados mas de septenta u ochenta hombres é mugeres entre indios y españoles.....

Tornando á nuestra historia desta gobernañcion de la Nueva Castilla, muchos afirman que en al punta de Sancta Elena se hallan muchos veneros de pez é alquitran ó á lo menos le paresçe, é brean los navios con ello. Toda la tierra ques dicho é aun la que se dirá es de diverssas lenguas, tanto que cada poblaçion tiene su lengua, é aunque con los veçinos algunos se entienden es con mucha diverssidad de vocablos mezclados con los otros comunes.

"Todas los más de los árboles que hay desde Puerto Viejo adelante hasta Sancta Elena por la costa, son á la manera de fresnos en lahoja, é son muy tiernos de quebrar, é huelen á himojo, é echan una resina muy oborosa, que tienen los indios en mucho, porque sahuman sus ydolos con ella.

"Entre la punta de Sancta Elena é Tumbez hay un rio muy grande é bien poblado: la gente que lo habita andan todos destentados, que no tienen dientes en la mandibula superior, assi hombres como mugeres: que por cierto delicto que hicieron al Cuzco, alias Guaynacava, padre de Atabaliba, les impuso aquella penitençia, e al pressente la guardan.

"En la boca deste grand rio ques dicho, hay una isla que llaman la Puna, que terna de çircunferençia doçe leguas, llana é de pequeños montes, pero muy viçiosa. Avia en ella más ó menos de seys ó siete mil veçinos indios: es de muchas é buenas pesquerias de diverssos géneros de pescados, é un hermoso puerto, que echan plancha en tierra los navios. Hay muchos venados en ella. Beben de poços, y es muy rica de oro é plata.

"Todos los indios é prinçipales se sirven con vassijas de oro: el señor desta isla salío de paz al gobernador Françisco Piçarro, é le passo toda su gente é caballos en balsas desde la Tierra-Firme á la isla, que hay una legua, porque alli usan las balsas, é puede llevar una balsa por la mar dos é tres caballos. Son hechas de unos palos gordos é livianos tablados como vigas, é otros atravessados, en que van atados, é sus barbacoas enmedio, é sus velas latinas, é remeros por los lados con sus nahes. El señor desta isla se sirve con mucha pompa, é quando sale de su casa es con trompetas é atabales: tienen porteros é guardas de sus mugeres, é porque estos no les parezcan bien á ellas, traen cortados los beços é nariçes é los miembros genitales: é la manera que tienen para cortarles los miembros es que tenidos les ponen una viga sobre los pechos é otra sobre los muslos, é despues de la aver cortado aquello, los vuelven de boca en tierra hasta que se desangran: que dicen que aquella sangre se avia de convertir en materia, e luego con dieta é çiertos polvos de hierba que le echan sana.

"En esta isla y en toda la tierra ya dicha desde los manglares á ella, hay muchos patos é coris, que crian en sus casas los indios: aqui dieron mucha guerra al gobernador Françisco Piçarro. Hasta aqui llegaba el señorio del Cuzco, é se halló un mayordomo ó recogedor de los tributos." "Historia General y Natural de Indias," Tomo IV, lib. XLVI, Cap. XVII, pp. 220, 221, 222 and 223.

The final quotation from the early writers concerning Puna is taken from Herrera.

CHAPTER XI.

"*De la calidad de la Isla de la Puná: i causa de la Guerra entre sus Naturales, i los Tumbecinos.*

"Tenia la Isla de la Puna mas de doce mil Habitantes, sujetos á los Ingas, i en la division que Guaynacapá Upangi hiço de el Estado entre sus dos Hijos Guascar, i Atahualpa, esta Isla cupo á Guascar, Rei del Cuzco; pero pretendió Atahualpa el Señorio, porque siendo Señor de Thito, que decimos Quito, no podia pasar sin ella, por la Sal, que en la Punta se labra, que se navegaba en Canoas, i Balsas, hasta Chimbo, por el Rio arriba, con la creciente de la Mar, i alli iban por ella los Vasallos de Atahualpa, sin poderla haver de otra parte, i era grande incomodidad para ellos ir a buscarla en ageno Señorio: por lo qual, i por ser la Puna el final termino del Linage de Guascar, i porque recibian agravio de su Inga, i havian sido maltratados de los Orejones, i Mitimaes, Soldados de los Ingas, como siempre los descontentos desean mudança de govierno, sin mirar a inconvenientes, i porque parecia a Tomala, que perdia mucho, sino contrataba con los del Quito, i con Atahualpa, le dió la obediencia: por lo qual los de Tumbez, como sus fronteros, i antiguos enemigos, i haverlos, de mucho tiempo atrás, sujetado al Imperio de los Ingas, tenian con ellos Guerra: i porque eran Caribes, que salian á robar á Tierrafirme, i á Guayaquil, i otras partes de ella, subiendo por el Rio arriba, siendo mui molestos á todos los Comarcanos, i mui atrevidos, confiados en la fortaleça de su Isla; porque tenian cercada casi la major parte de ella, con un grueso Muro, i hechos Fuertes de Piedra, Madera, i Tierra, en los surgideros.

"Y como en la saçon, que Francisco Piçarro llegó en aquella Tierra, andaba la Guerra mui encendida, por la division de los dos Ingas, Hermanos, estos de la Puna, i de Tumbez,

se trataban con gran crueldad, llevando lo mejor los de el Vando de Atahualpa, por haver poco antes sujetado la Sierra de Caxamalca, i á Mocha, i Tomebamba, que siendo de su Distrito, se le rebelaron, sentidos por haver sido desmembrados del Imperio del legitimo Inga, con quien tenian deudo por su Madre, i haver sido adjudicados, como Esclavos, al bastardo Atahualpa; el qual, mui ofendido de ello, i porque se le ponian en defensa, con un poderoso Exercito los sujeto, i mató millones de Gente, despoblando la Tierra: i sin perdonar a sexo, ni edad, mandó sacar los coraçones á infinitos, i sembrarlos, por orden, en las Labranças del Maiz, diciendo, que queria saber el fruto, que daban coraçones traidores; i oi Dia se vén los huesos en tanto numero, que pone espanto, i se conservan, por correr en aquella Tierra vientos secos, i frescos.

"Boxa esta Isla veinte Leguas: tenia antes mucha Gente de su condicion feroz, i que ni sabia vivir en quietud, ni dexar en ella a sus Vecinos: eran ricos, por el gran trato de Sal, i Algodon, de que cogen mucho. La Tierra es caliente, i de poca Agua, porque no la tienen, sino llovediça: hai muchas Arboledas, i frescuras, i el Agua que se recoge en el Invierno, sirve para el Verano en Lagunas: i el Ganado no bebe, sino de tres á quatro Dias: hai muchos Venados, i los mejores de comer de el Mundo, porque engordan con los Salitrales; i la Tierra es tan buena, como la de Panama, i los Cabritos mui sabrosos: hai buen Puerto, para dár Monte, i limpia Plaia: la Gente comia carne Humana, era mui viciosa, tocaba en el pecado nefando, i los Hermanos no se abstenian de las Hermanas, i tenian otros bestiales pecados: hablaban con el Demonio, i eran mui Agoreros: hai fama, que en los Adoratorios de los Idolos está enterrada gran suma de Oro, i Plata: son los Hombres de medianos cuerpos: vestian Ropas de Algodon: traian muchas bueltas de Chaquira al cuello, i las Mugeres en las muñecas, i en las piernas, por junto al tovillo, para mostrarse galanas: hai muchas Aves de todas suertes, Papagaios, Guacamaias, Gaticos pintados, Monos, Corros, Leones, Culebras, i otros muchos Animales: lloraban, pur muchos Dias, a los Señores, quando morian: enterrabanlos con gran veneracion, con muchas riqueças, i cosas de sus Mugeres, i sus Armas; i algunas Mugeres, las mas hermosas, se enterraban vivas con ellos, para hacerles compañia; las otras se cortaban los cabellos, i aun las mas cercanas Parientas. Era esta Gente dada á Religion, aunque viciosa: hacian Obsequias á los muertos: tenian los Templos en partes escuras, i escondidas, i las paredes pintadas con espantosas figuras: sacrificaban Animales, i Aves, i algunos Hombres tomados en Guerra. En la Isla de la Plata, cerca de esta, tenian un Templo, adonda sacrificaban, i al rededor tenian Oro, Plata, Joias, i Vestidos, que en discurso de tiempo se havian ido ofreciendo: hai en esta Isla muchas Carçaparrilla, i la mas perfecta que se halla en otras partes: aora, por la Gracia de Dios, todos viven católicamente, apartados de tan enormes pecados, i la Isla es del Rei. Y aunque no es su lugar lo que se ha dicho de las Guerras de los dos Hermanos Guascar, i Atahualpa, ha convenido tocarlo, para maior declaracion de las cosas de Puna." Herrera, "Historia General de los Hechos de los Castellanos en los Islas y Tierra Firme del Mar Oceano," Decade IV, Lib. VIII, Cap. XI, pp. 147, 148, Edition of Madrid, 1786.

7. The full title of the document containing this notice is: "Informacion hecha en Panama a 14 de diciembre de 1526 por mandado del gobernador de Castilla del Oro Pedro de los Rios a pedimento del capitan Diego de Almagro, para informar a S. M. de los servicios del capitan Francisco Pizarro, y suyos, y pedir mercedes. De orden del gobernador recibio los testigos Juan de Castañega, alcalde ordinario, ante Francisco Perez escribiano. En 17 de Julio a pedimento de Almagro, el licenciado Juan de Salmeron, alcade mayor y juez de residencia, manda autorizar este informacion a su escribiano Cristobal Muñoz."

In "Coleccion de Documentos ineditos para la Historia de España," Vol. XXVI, pp. 256–265. Madrid, 1855.

8. Cieza de Leon, op. cit. The part relating to Manabi and Guayas we have published in our preliminary report, pp. 100–105. Regarding the statement referred to, see p. 101.

9. Benzoni, History of the New World. Hakluyt Society, Publication 1868, p. 243.

10. As we have shown on p. 5, in our statement regarding the Indian name of the Island of Puna, it is quite difficult to ascertain with exactness many points relating to the early history of this coast, as there are differences in the accounts of the various early writers, and but little attention was paid to this region. This is largely due to the fact that the Spaniards were lured onward to Peru where greater wealth abounded, and the present Ecuadorian coast was but sparsely settled by Spaniards in early times.

11. Velasco, op. cit. p. 4.

12. Cieza de Leon, op. cit. p. 102 of our preliminary report.

13. Benzoni, op. cit. p. 244. See also the extract from this work, pp. 107–109 in our preliminary report.

14. Garcilasso de la Vega, First Part of the Royal Commentaries of the Incas, Hakluyt Edition, Vol. II, Book 9, Chap. III, pp. 436–437.

15. The work of Sarmiento de Gamboa remained unedited until 1906 when it was published in Berlin by Richard Pietschmann under the title, "Geschichte des Inkareiches" in den Abhandlungen der Königlichen Gesellschaft der Wissenschaften zu Göttingen, Philologisch-Historische Klasse, Neue Folge, Band IV, Nro. 4. It has been translated and edited by Sir Clements Markham, and published by the Hakluyt Society, 1907. We quote from the English Edition, pp. 134–135.

16. Benzoni, op. cit. p. 244.

17. Cieza de Leon, op. cit. pp. 202–203.

18. As this paper is but little known we republish it here.

"On Crystal Quartz Cutting Instruments of the Ancient Inhabitants of Chanduy (Near Guayaquil in South America).

By Clements R. Markham.

"The three ancient cutting instruments of the former inhabitants of Chanduy, at the mouth of the river Guayaquil in South America, (now exhibited) are chips of transparent quartz crystal. One of them is broken.

"These crystal lance heads and knives are found all over the country, from the point of Santa Elena to the town of Guayaquil; but it is near the latter place that they occur in greatest abundance, chiefly on certain low mounds, laid bare by the winter rains. A French apothecary, named Reyre, took scores of them to Paris a few years ago.

"The present specimens were found by Mr. Spruce near the little town of Chanduy, on the sea-shore, in middings, or refuse heaps similar to those in Denmark. These middings consist chiefly of fragments of pottery, and of sea shells of four species, an oyster, a mussel, a cockle, and a large heavy bivalve, beautifully fluted, and with a remarkably thick bevelled edge, called by the inhabitants *pie de burro*. The latter shell is not now found on the coast near Chanduy.

"The formation of the land round Chanduy, is precisely the same as that of the coast of Peru-land recently upraised from the sea—the uppermost strata being shell marl, lower down calcareous grit, but all containing only recent shells.

"The point to which I would wish to draw attention, in regard to these quartz cutting

instruments, is that the people of this country, when the Spaniards first discovered it, were using bronze cutting instruments. That mentioned by Humboldt as having been found near Cuzco, is composed of metal containing 0·94 of copper and 0·06 of tin; and, in describing it, he remarks that everywhere in the old continent, also, at the beginning of the civilisation of nations, the use of copper mixed with tin prevailed over that of iron. The old inhabitants of South America, at the time of the Spanish conquest, were, therefore, passing through the age of bronze, and had not yet entered upon their age of iron. In the present state of our information, it would be unprofitable to discuss their origin, but they may fairly be considered to have been indigenous to the American continent, to be, by many ages, a younger race than any of those in the old world, and to have been, by slow unsteady steps, working their way towards a higher civilisation when the Spanish invasion suddenly destroyed their separate existence.

"Three centuries ago, then, they were in a stage of development analogus to that through which the old world races had passed many centuries earlier, and which is now called the bronze age. But these quartz crystals seem to prove that at some much earlier period, when the refuse heaps of Chanduy were made, there had been a stone age preceding the bronze age of the South Americans, just in the same order as these successive epochs are believed to have occurred in the history of the European races; and it is from this circumstance that, I believe, any interest that may be attached to these relics, will arise.

"It is worth while to mention that the district where these quartz crystal instruments and refuse heaps are met with, including the point of Santa Elena, is famous for having been the locality where huge fossil bones have been found from time immemorial. Among the ancient inhabitants these bones gave rise to a tradition that a monstrous race of giants once landed at the point of Santa Elena, and were afterwards destroyed by God for their wicked enormities. In the middle of the sixteenth century, when the adventurous young traveller and chronicler, Pedro Cieza de Leon, visited this part of the country, he heard the tradition of the giants from the mouths of Indians. He adds, in order to prove the truth of the story, that he knew Spaniards who had seen part of a tooth weighing half a butchers pound, and a shin bone of marvellous size, both found near the point of Santa Elena. Mr. Spruce tells me that the bones of large mammals are still found near Chanduy, chiefly along the coast, where portions of the cliffs are continually falling in; and that a French naturalist, named Berthier, carried off some large teeth a few years ago. There is a deposit of similar bones on the banks of the Chambo, a league from Riobamba, in the Quitenian Andes, where an English naturalist named Fraser, made excavations in 1858, which were continued by Dr. Garcia Moreno, the President of the Republic of Ecuador; and amongst other fossils, a scapula, quite entire, and of gigantic size, was dug up. These bones of extinct mammals, are probably of the same genera as those found in the analogous diluvial deposits at Tarija in Bolivia, which have been described by Castlenau and others, namely, of mastodons, glyptodon, megatheria, etc.

"The fossils of Point Santa Elena have not, to my knowledge, been scientifically reported upon; but it will be very interesting if, as is possible, evidence should be hereafter adduced to show that these gigantic mammals existed on the recently upraised beaches of the west coast of South America, contemporaneously with the people who made the refuse heaps and quartz crystal knives of Chanduy. Such a discovery would throw back the stone age of this people to a far more distant period than the other evidence before us would seem to indicate.

"I may remark, in passing, that an author named Rankin, who wrote in 1827, founded his fantastic theory that Peru and Mexico were conquered by Mongols accompanied by

elephants, chiefly on the fossil bones and tales of giants in the neighborhood of Point Santa Elena.

"That in the earliest ages of man's history all advances in the useful arts were extremely slow and gradual; that incredibly long intervals of time elapsed before even a slight improvement was made in the form of an arrow head is, I believe, a generally received opinion. It is not until civilization has reached an advanced stage that discoveries begin to follow each other rapidly: while, in man's more primitive state, he remains almost in the same condition for many centuries, and advance is slow and almost imperceptible. Archbishop Whately, indeed, goes so far as to declare that the evident inability of savage nations to make any progress in the arts, is a perfectly satisfactory proof that man would never have become civilised but for a special revelation.

"There is nothing improbable, therefore, in the supposition that the descendants of the people who sat on the refuse heaps and used quartz crystal knives while megatheria and mastodon still wandered over the South American continent, had only, after the lapse of countless centuries, reached a civilisation which is represented by bronze chisels, grotesque pottery, and rude gold and silver ornaments, when the Spaniards first landed on their shores.

"That the skill and taste of these people, the inhabitants of the coast near Guayaquil and of the neighbouring islands of Puna and Muerto, was far from contemptible at the latter, is proved by a very interesting discovery made on the latter island about three years ago, an account of which has been sent me by Mr. Spruce. The remains which were then found would certainly indicate no mean degree of civilisation, and I propose to conclude this paper with a very brief account of one or two of them. It will show to what point the descendants of the chippers of quartz crystal had attained, when they were overwhelmed by the Spanish conquest. One of the objects was a small statue, six or eight inches high, of pure gold, and very creditably sculptured. But by far the most curious was an ornament, consisting of several thin plates, almost like a lady's muslin collar in size and shape, and covered with figures. One of these ornaments has perhaps a hundred figures of pelicans, the sacred bird of these people according to the local tradition. Every figure represents the bird in a different attitude, and as they have been stamped, not engraved, a separate die must have been made for each figure. They are all of gold, but some of them with a considerable alloy of silver.

"These interesting relics were found by the lighthouse man on the island of Muerto, in an ancient burial place, and sold by him to Mr. Reiss, the Prussian Consul at Guayaquil, who is since dead."—Journal of the Anthropological Society of London. Vol. II, 1864, pp. LVII–LX.

19. The work of Wolf was published in Leipzig in 1892. We quote from it in the next note.

20. Wolf, op. cit. p. 358, in describing obsidian from the interior, writes: "In all of the interior inter-Andean country are found arrow points, knives, and fragments of this mineral (obsidian), which the Indians call *ayacollqui*, that is, silver of the dead. Along the banks of the Rio Daule, especially near Balzar, are found a multitude of these same points of obsidian as in Quito, and in the vicinity of Colonche I encountered a small round mirror, that was found in a neighboring mountain, and which one recognized at a glance as the most beautiful obsidian of Antisana (respectively of the Guamani)."

21. Dorsey, "Archæological Investigations on the Island of La Plata, Ecuador," Field Columbian Museum Publication 56. Archæological Series, Vol. II, No. 5, Chicago, 1901. We quote from this work in another place.

22. Through an oversight there are no notes for 22 and 23. The next note is 24.

24. Herrera, op. cit., Decade IV, Lib. II, Cap. VIII, p. 36.

25. Villavicencio, "Geografia de la Republica del Ecuador," New York, 1858, p. 245.

26. La Condamine, "Journal Du Voyage Par Ordre Du Roi A L'Equateur," Paris, 1751. Map opposite p. 1.

27. Wolf, op. cit. p. 23.

28. Garcilasso, op. cit. See our preliminary report, p. 106.

29. Herrera, op. cit., Decade IV, Lib. VII, Cap. IX, pp. 144–145.

30. La Condamine, op. cit. See map opposite p. 1.

31. Sarmiento de Gamboa, op. cit. pp. 166–167.

32. See the full account of Cieza de Leon published in the notes of our preliminary report, pp. 100–105.

33. Velasco, op. cit., makes frequent reference to this work. We have already noted the importance of this authority in our first report.

34. The following relating to Coaque, is taken from the Relacion of Pedro Pizarro: "se embarco y siguiendo su viaje tomo tierra en la bahia de Sant Mateo, donde echando alguna gente en tierra, los navios costa a costa fueron a dar en un pueblo que se decia Coaque, que fue nuestro Señor servido o topasen con el porque con lo que en el se hallo se acredito la tierra, y vino gente a ella como adelante se dira. Pues llegada a este pueblo de Coaque dieron de supito sin sabello la gente del porque si estuvieron acusados, no se tomara la cantidad de oro y esmeraldas que en el se tomaron: ansi que tomo el pueblo los naturales huyeron, que muy pocos se pudieron haber por estar este pueblo junto a muy grandes montañas y muy espesas dejando todos sus haberes y haciendas: los españoles lo recogieron y juntaron el oro y la plata porque asi estaba mandado y ordenado se pena de la vida el que otra cosa hiciese, porque todos lo habian de traer a monton para que de alli el gobernador lo repartiese dondo cada uno conforme a su person y meritos de servicios." Page 210.

"Se hallo mucha chaquira de oro y de plata, muchas coronas hechas de oro a manera de imperiales, y otras muchas piezas en que se aveleo monton mas de doscientos mil castellanos. Dende este pueblo de Coaque donde se hallo, hasta Caxamalca, no se hallaron dos mil pesos de oro ni plata juntos." Page 211.

"En este Coaque se hallaron muchos colchones de lana de ceyua [ceiba, the silk cottonwood trec, the down of which is still used for mattresses in Manabi, and it is often exported to Europe] que son unos arboles que la crian, que ansi se llaman. Acontescio pues que algunos españoles, que en ellos se echaban, amanescian tullidos: que si el brazo doblado o la pierna el dormia no la podian desdoblar sino era con muy gran trabajo y beneficios; esto acontescio a algunos y aun se entendido que esto fue el origen de una enfermedad de dio de berrugas (Verrugas, warts or pimples) tan mala y congajosa que tuvo a mucha gente muy fatigada y trabajada con muchos dolores como si estuvieran de bubas hasta que salia grandes berrugas por todo el cuerpo, y algunas tan grandes como huevos, y rebentado el cuero les corria materia y sangre que tenian necesidad de cortarselas y echarse en la llaga cosas fuertes para sacar la raiz: otros habia tan munudas como sarampion de que se hinchian los hombres todo el cuerpo. Pocos escaperon que no las tuvieron, aunque a unos dio mas que a otros. Otros quisieron decir que se causo esta enfermedad de unos pescados que comieron en las provincias de Puerto Viejo, que los indios dieron de malicia a los españoles. Pues estando ansi como digo en este pueblo de Coaque." Page 212.

The Spaniards left Coaque when Benalcazar arrived with a small boat containing

thirty men, and proceeded to the land of Puerto Viejo, and thence to the Island of Puna. This account of the first arrival of the Spaniards at Coaque, is contained in "Relacion del descubrimiento y conquista de los reinos del Peru, y del gobierno y orden que los naturales tenian, y tesoros que en ella se hallaron: y de los demas cosas que en el han subcedido hasta el dia de la fecha. Hecha por Pedro Pizarro, conquistador y poblador destos dichos reinos y vecino de la cindad de Arequipa. Año 1571." Coleccion de Documentos Ineditos para la Historia de España, Tom. V, pp. 201–388. 1842.

35. There seems to be a considerable discrepancy in the statements of the early writers, as to the value of the treasure obtained in the sacking of Coaque. According to Pedro Pizarro, the value was two hundred thousand castellanos; Xeres places the value of the gold and silver at fifteen thousand pesos of gold, and fifteen hundred marcs of silver; Herrera says that the value was twenty thousand castellanos. A castellano about equals two dollars, so that there is a vast difference between the four hundred thousand dollars as given by Pizarro, and the forty thousand of Herrera. At all events, this was the greatest treasure found by the Spaniards in any part of the South American or Central American coasts, until their arrival in Peru. In fact Pizarro writes that after the Coaque treasure was obtained they only secured less than four thousand dollars worth of gold and silver combined, between Coaque and Caxamalca in Peru.

36. We have taken this account of Xeres from the translation by Markham, in his "Reports on the Discovery of Peru," p. 12, published by the Hakluyt Society, 1872.

37. "Llegaron a Coaque, lugar bien proveido, y rico, donde se refresearon assaz cumplidamente, y hubieron mucho oro y esmeraldas, de las cuales quebraron algunas para ver si eran finas, porque hallaban tambien muchas piedras falsas de aquel mesmo color. Apenas habian satisfecho al cansancio, y hambre, quando les sobrevino un nuevo, y feo mal, que llamaban Berrugas, aunque segun atormentaban, y dolian, eran bubas. Salian aquellas berrugas, o bubas a las celas, narizes, orejas, y otras partes de la cara, y cuerpo, tan grandes como nuezes, y muy sangrientas. Como era nueva enfermedad, no sabian que hazerle, y renegaban della tierra, y de quien a ella los traxo, viendo se tan feos, pero como no tenian en que tornarse a Panama sufrian. Pizarro, aunque sentia la doleneia, y muerte de sus compañeros, no dexo la empresa, antes embio veynte mil pesos de oro a Diego de Almagro, para que le embiasse de Panama, y de Nicaragua, los mas hombres, caballos, armas, y vitualles que pudiesse, y para abonar la tierra de su conquista, que tenia ruyn fama. Camino tras este despacho hasta Puerto viejo, a vezes peleando con los Indios, y a vezes rescatando. Estando alli vinieron Sebastian de Benalcazar, y Juan Fernandez, con gente, y caballos de Nicaragua. Que no poca alegria, y ayuda fueron para pacificar aquella costa de Puerto Viejo." Francisco Lopez de Gomara, "La Historia general de las indias," Anvers M. D. LIIII, pp. 149 reverso, 150.

38. "Al cabo de cinco Dias de navegacion, vieron Tierra, tomaron Puerto y conocieron que era la Baia, que llamaron S. Mateo; platicose lo que se havia de hacer, para no errar el principio de la Empresa; i despues de diverses pareceres, se resolvio, que los Caballos se sacasen a Tierra, i fuesen por la orilla de la Mar, i los Navios costeando: camino, con mucho trabajo, la Gente, porque hallaron Rios, i Esteros; u una Mañana dieron en un Pueblo, dicho Quaque, puesta entre grandes Montañas, adonde hallaron gran despojo; porque aunque los Indios tuvieron lugar de alçarlo, no lo hicieron; porque pensaron, que no haviendo hecho injuria a aquellos Hombres, no les harian mal, sino que holgarian unos con otros; pero hallaronse burlados, i por esto se fueron algunos al Monte: tomaron mas de veinte mil Castellanos en Plata, Oro, i muchas Esmeraldas finas, que en todas partes valieran gran Tesoro en aquel tiempo, i asi se perdieron muchas; porque Fr. Reginaldo de

Pedraça, de la Orden de Santo Domingo, afirmaba, que la Esmeralda era mas dura que el Acero, i que no se podria romper; i probandolo algunos, las rompian con Martillos; aunque no falto quien dixese, que el Fraile las guardaba; i otros huvo que lo hisieron tambien. El Tesoro se puso en monton, para sacar el quinto del Rei, i repartir a cada uno lo que perteneeia: i nadie, so pena de la vida, podia esconder nada; i esta orden se guardo en toda esta Jornada. Mucho era el espanto de los Indios de ver estas cosas, i tal Gente: admirabanles los Caballos, creindo (segun dicen los que lo referian) que les parecian inmortales. El Señor de el Lugar escondiose en su misma Casa, maldiciendo tan malos Huespedes; pero al fin le hallaron, i mui medroso, le llevaron a Don Francisco Pizarro, i dixo por las Lenguas: que no estaba escondido, sino en su propria Casa, i no en la agena: i que viendo que contra su voluntad, i de los Suios se havian entrado en el Lugar, no havia ido a verlos, temiendo de muerte. D. Francisco Pizarro le aseguro, i dixo: que hiciese bolver la Gente, que se havia huido, porque no era su intencion hacerle mal, i que lo havia errado, en no haver salido al camino a ofrecerle la Paz, porque no le huvieran tomado cosa ninguna. Mando bolver los Hombres, Niños, i Mugeres, los quales proveian de bastimento, i de lo que tenian; pero viendo que los Castellanos los tenian en tan poco, i que recibian de ellos pesadumbre, otra vez se huieron al Monte, i aunque los buscaron, hallaron pocos.

"Con la presa del Oro, que fue en pieças, ricas i vistosas, acordo D. Francisco Pizarro de embiar dos Navios a Pauama, i otro a Nicaragua, a cargo de Bartolome de Aguilar, para llevar Gente, i Caballos, i escrivio a sus Amigos, dando noticia de la riqueça de la Tierra, i que se governaba un Señor solo, de lo qual podian promerterse mucho bieu. Los que quedaron en Quaque, Tierra cerca de la Linea Equinocial, padecerieron mucho en siete Meses, que aguardaron; porque acontecio acostarse sanos, i levantarse hinchados, i algunos amenecian muertos: otros con los miembros encogidos, tardando veinte Dias en sanar: nacianles Berrugas encima de los ojos, i por todo el cuerpo, con grandes dolores, que causan impedimento, i fealdad, i dables pena al saberse curar de enfermedad tan contagiosa: los que se las cortaban, se desangraban tauto, que pocos escaparon: a otros les nacieron mas menudas, i espesas, dixose, que este mal fue causado de cierto Pescado emponçañado, que les dieron los Indios; i aunque tenian abundancia de Maiz, Frutas, i Raices de la Tierro, en muchos Dias no comieron Carne, ni Pescado: aguardaban las Naves con grau deseo, sentian mucho su tardança, renovabanles los trabajos pasados, a los que havian venido de Nicaragua, traian a la memoria las dilicias, que havian dexado en aquellas Tierras; i como las enfermedades no cesaban, i la comida los cansaba, acordaron de salir para otra Tierra; i estando para mudarse, descubrieron un Navio con bastimentos, i refresco, en que iban el Tesorero Alonzio Riquelme, el Veedor Garcia de Saucedo, i el Contador Antonio Navarro, Geronimo de Aliaga, Gonçalo Farfan, Melchior Verdugo, Pero Diaz, i otros. En partiendose D. Francisco Pizarro de San Lucar, entendiendo los Oficiales de la Casa de la Contratacion de Sevilla, que su partida havia sido cautelosa, despacharon Requisitorias a las Justicias de Panama, para que le impidiese su Jornada, especialmente haviandose dexado los Oficiales Reales, sin llevarlos consigo; pero el Rei mando, que sin embargo de las Requisitorias, no se le impidiese la Jornada: i que entretanto que iban los Oficiales, nombrase D. Francisco Pizarro otros en su lugar, i que estos partiesen con toda brevedad; i haviendolo hecho asi, llegaron en este Navio a Quaque, adonde todos fueron bien recibidos: i con la esperauça que daba Diego de Almagro de ir presto, determinaron de pasar adelante. Haviase ia derramado eutre los Indios fama mui diferente de la primera, que eran los Castellanos Gente santa, enemiga de robar; pero aora ia se decia, que eran crueles, sin verdad, i que andaban como Ladrones, de Tierra en Tierra, haciendo mal a los que no los havian ofendido, que llevaban

grandes Caballos, que corrian como el viento, Lanças mui agudas, i Espadas, que cortaban quanto alcançaban: unos lo creian: otros los deseaban ver: dieron aviso a los Governadores de los Ingas, i ellos lo avisaron al Cuzco. Fueron a otro Pueblo, llamado Passao, i el Señor aguardo de Paz. Don Francisco Pizarro le dixo: que su Gente no ofendia a los que diesen obedencia al Rei de Castilla; pero que advertiese, que su paz fuese verdadera: dixo: que era voluntaria, i no fingida; i asi sirvieron bien los Indios a los Castellenos: porque como estaban acostumbrados a servir mucho a sus Señores, lo hacian con cuidado; i aqui se dixo, que el Señor de este Lugar presento a D. Francisco Pizarro una Piedra de Esmeralda, para moler Maiz, tan grande como un huevo de Paloma, porque le dexase diez i siete Indias, que llevaba de otro Lugar, creiendo el Cacique, que no valia nada; i con esto el Exercito se salio de Passao, quedando mui en gracia de la Gente..... .....

"Despedido de Passao, llego a la Baia de los Caraques, i subiendo la Tierra arriba, atraveso el Rio, que en ella entra, i llego a un Lugar de una Caciça, que aquellos Dias havia embiudado." Herrera, Op. cit., Decada IV, Libro VII, Cap's. IX and X, pp. 143, 145.

39. We give here in full this entire document, published in the Coleccion de Documentos Inéditos para la Historia de España, Tom V, 1842.

"Relacion de los Primeros Descubrimientos de Francisco Pizarro y Diego de Almagro, Sacada del codice numero CXX de la Biblioteca Imperial de Viena.

"En el año pasado de 1525 años estando Gobernador Pedro Arias de Avila de la tierra firme, que es cierta parte de la tierra firme a la que llaman Castillo del Oro, en la eindad de Panama que es fundada en la costa de la otra mar del Sur, se ofrecieron al dicho Gobernador los capitanes Francisco Pizarro y Diego de Almagro a hacer a sus expensas cierto descubrimiento hacia la parte de levante, que es al oriente de la dicha eindad: y que hicieron y hallaron, es lo que se sigue.

"Los dichos capitanes teniendo noticia de una provincia que se dice el Peru que es en la misma costa de tierra firme en la parte del mar del Sur de donde es la eindad de Panama hacia el levante partieron en el año de 25 con dos navios de cuarenta y sententa toneles y un bergantin pequeño, y hasta ciento y cincuenta hombres compañeros de la tierra y sus maestros y marinos que discurriendo por la costa hasta dar en dicha provincia, hallaron algunas pueblos junta a la mar, pequeños, y con algunos de ellos asentaban sus paces y pasaban de largo. Tuvieron noticia en aquellos pueblos que entranla tierra dentro, detras una sierra que se hace grande habia muchos pueblos adonde habia mucha cantidad de oro, y que la tierra era muy llana y enjuta, toda por la mayor parte prados, y poco montuosa, y que era tan caliente en cierto tiempo del año que no podian andar los indios sin llevar debajo de los pies unas cortezas de arboles hechas a manera de chinelas, porque descalzos se quemaban los pies, y unos sombreros hechos de hojas de arboles sobre las cabezas. Yendo por las costa adelante, dejando estos pueblos pequeños que digo, hallaron que la costa era algo mas aspera y volvieronse atras al paraje de aquella tierra caliente para tomar contratacion con los indios: todos los pueblos que habian dejado en la costa hallaron los quemados y los indios alzados y idos la tierra dentro. Parece que en aquellos pueblos solo sirven los indios de pesquerias y hacer sal para proveer los otros de la tierra dentro. Procuraron de entrar los capitanes y gente a un pueblo de que tuvieron noticia que era grande y bueno, y dieron sobre el: hallaronle barreado todo de madera de rama: al combatir fueron heridos algunos cristianos y quebraron el ojo al capitan Diego de Almagro. Las armas que tenian eran lanzas y tiraderas y macanas y piedras. Al fin entraron el pueblo y hirieron y mataron algunos indios. Ellos tenian alzado toda la hacienda, mugeres y hijos; y los capitanes por curar los enfermos tonaronse al navio. Y porque la tierra era muy aspera de cienegas, y muy montuosa por toda aquella costa la dicha provincia, que es

hasta ochenta leguas, aunque es la costa llana para la tierra dentro, no se manda por caminos ninguno, salvo por los rios e canoas, porque lo demas es todo cienagas y montes muy espesos y muchas partes de palmas espinosas: y porque los capitanes no tenian navios sotiles para los rios, no entraron sino en tres o cuatro partes, y no podian ser sino vistos: y hallaban los indios alzados y no podian conseguir otro efecto sino proveerse de algunos mantenimientos para en los navios. De algunos alcanses que siguieron, tomaron algun oro y piezas que los indios tienen para sus personas: hallaronse unas madejas de hilo de oro tirado que pesaba mas que seiscientos castellanos, y muy fino oro en aquellos pueblezuelos que digo pesquerias, pero los les habian tomado nada por guardales paz pensando que los pudieran atraer a ella. Viendo la aspereza de esta tierra y que no tenia gente ni aparejo para poder atravesar las tierras para ir a los pueblos grandes, que arriba dije que es caliente y riea, siguieron la costa adelante que va por la mayor parte discurriendo norte sur, y vieronse en mucha necesidad con tiempos contrarios porque se hacen muchas puntas en algunas partes, y hallaron algunas islas despobladas: cerca de tierra fueron a dar a un rio grande que pusieron nombre San Juan, y hallaron ahi algunas poblaciones; y por ser vistos antes que pudiesen dar en ellas, se fueron los indios con lo que tenian y algunos pueblos quemaron. Los capitanes aposentaronse en un pueblo, y los indios vinieron a par sobre ellos y les pusieron en harta necesidad; pero a fin se fueron los indios, y quedaronse aposentados y procuraron de hacer paz con ellos; pero no a fecho.

"Y viendo los capitanes la poca manera que habia en aquella tierra de poblar ni haberse provecho y que traian la gente muy cansada acordaron de enviar un piloto muy bueno que tienen que se diee Bartolomeo Ruiz, que fue con un navio y cierta gente de la costa delante, mandandole que la siguiese dos meses todo lo que pudiese andar. El fue, aunque con mucho trabajo, y hallo una bahia muy buena, que puso nombre de San Mateo, y alli vio tres pueblos grandes junto a la mar, y salieron algunos indios a el que venian arceidos de oro, y tres principales, puestas unas diademas, y dijeron al piloto que se fuese con ellos: dioles un hombre que se diee . . . . de Bocanegra[1], y estuvo alla dos dias y violes andar arecidos de oro, y dieronle un poco de oro por fundir. Alli no habia diferencia de la manera de los indios mas de como los de Panama. Vuelto el cristiano al navio aeompañado de los indios que le habian llevado y de otros muchos, siguieron la costa y de alli discurriendo vieron que iban tierra muy llana y de muchas poblaciones en que allegaron al paraje de unas grandes sierras y costa brava, hallaronse que estaban de aquella parte de la linea equinoçial tres gradas y medio perdido el norte. De alli porque se les acababa el termino dieron vuelta; en esa tierra llana muy poblada dieron algunas calas para tomar posesion y proveerse de agua; tomaron un navio en que venian hasta veinte hombres, en que se eeharon al agua los once de ellos, y tomados los otros dejo en si el piloto tres de ellos y los otros echolos asimismo en tierra para que se fuesen; y estos tres quedaron para lenguas, hizoles muy buen tratamiento y trujolos consigo.

"Este navio que digo que tomo, tenia paracer de cabida de hasta treinta toneles; era hecho por el plan y quilla de unas cañas tan gruesas como postes, ligadas con sogas de uno que dicen enequen, que es como cañamo, y los altos de otras cañas mas delgadas, ligadas con las dichas sogas, adonde venian sus personas y la mercaduria en enjuto porque lo bajo se bañaba. Traia sus mastiles y antenas de muy fina madera y velas de algodon del mismo talle, de manera que los nuestros navios, y muy buena jarcia del dicho enequen que digo es como cañamo, y unas potales por anclas a manera de muela de barbero.

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[1] falta el nombre en el ms. original.

"Y traian muchas piezas de plata y de oro por el ario[1] de sus personas para hacer rescate aquellas con quien iban a contratar en que intervenian coronas y diademas y cintos y ponietes y armaduras como de piernas. y petos y tenazuelas y cascabeles y sartas y mazos de cuentas y roseeleres y espejos guarneeidos de la dicha plata. y tazas y otra vasijas para beber; traian muchas mantas de lana y de algodon. y camisas y aljulas[2] y alcaceres y otras muchas ropas, todo lo mas de ello muy labrado de labores muy ricos de colores de grana y carmisi, y azul y amarillo y de todas otras colores de diversas maneras de labores y figuras de aves y animales y peseados y arboledas; y traian unos pesos chiquitos de pesar oro como hechura romana, y otras muchas cosas. En algunas sartas de cuentas veniau algunas piedras pequeñas de esmeraldas y eacadonias[3] y otras piedras y pedazos de cristal y anime. Todo esto traian para rescatar por unas conchas de pescado de que ellos hacen cuentas coloradas como corales, y blancas, que traian casi el navio cargado de ellas.

"Y vuelto este piloto al rio de San Juan adonde digo que habian quedado los capitanes con la buena nuev de la buena y llana tierra que habian hallado, se fueron luego los dichos capitanes con navios y gente derechos a la bahia de San Mateo, adonde digo que el cristiano habia entrado en los pueblos con los indios, y alli se les embarcaron y dejaron en los dichos pueblos porque no hubo lugar de meter los caballos que llevaban por un estrecho que habian que pasar, fueronse por la costa adelante a dar en otro pueblo que estaba cuatro leguas de alli muy grande, que se dice Tacanez, y los capitanes y gente por tierra, y maestros marineros con los navios por mar: salieron a los dichos navios catorce canoas grandes con muchos indios, dos armados de ora y plata, y traian en la un canoa un estandarte,[4] y encima de el un bolto[5] de un mucho dest[6] de oro; dieron una vuelta a los navios por avisarlos, en manera que no los pudiese enojar, y asi dieron vuelta hacia a su pueblo, y los navios no los pudieron tomar porque se metieron en los bajos junto a la tierra: y los capitanes y gente que venian por tierra, no vieron nada de esto, y asi se volvierou a su pueblo de su salvo. Cuando los capitanes allegaron al pueblo hallaron toda la gente de la recogida y hecha fuerte en una parte, puesto en recando sus mugeres y hijos, porque parece que tres dias[7] que tenia noticia de ellos. Y aposentaronse en otro pedazo del pueblo y enviaronles ciertos mensajeros con los indios mansos que llevaban para viniesen alli para hacer paz, y dijeron que otro dia vendrian a cierta hora y no vinieron; y tornaronles a enviar otra vez los mensajeros, y nunca volvieron los mensajeros ni ellos. Y viendo los capitanes la mucha multitud de indios que habia, porque era pueblo de mil y quinientos casas y estaban otros pueblos junto de que se recogian mas gente, y ellos no eran de ochenta hombres arriba sin los de los navios para pélear, parecioles de retirarse, y asi disimuladamente de salieron y embarcaron y volvieron a una isla que esta veinte y cinco leguas atras, con acuerdo que el capitan Francisco Pizarro se quedare alli con los navios y gente, y el capitan Almagro viniese con un navio a Panama por cien hombres de socorro y algunas caballos y pertrechos para tornar a dar en el dicho pueblo: y llegado a Panama no hallo la gente ni socorro que hubo menester: compro un navio que estaba en el nombre de Dios y enviale a la isla española para que de alli le lleveban gente. Y porque en esta medio el capitan Pizarro y la gente que con el estaba no padeciese hambre o otro peligro, enviaronsele dos navios proveidos de bastimentos, el uno para el capitan con la gente que hubiese fuese a descubrir con el piloto adelante lo que primero habia descubierto, todo lo que pudiese, y volviesen a cierto tiempo. y el otro navio trujese la gente flaca y otros que se quisiesen venir a reformar a Panama en tanto que hubiese harta gente para ir de socorro.

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[1] Perhaps — avio. [2] abjuda. [3] calcedonias. [4] El ms. Ó en estandarte.
[5] bulton. [6] El ms. dice. de un mucho desio do o. [7] Quiza: porque tres dice habia.

"Aquellos tres indios que digo que se tomaron en el navio, que se llevaron a los capitanes tomaron nuestra lengua muy bien: parece que ellos eran de una tierra y pueblo que se dice Calangane: es gente en aquella tierra de mas calidad y manera que indios porque ellos son de mejor gesto y color y muy entendidos, y tienen una habla como arabicos, y a lo que parece ellos tienen sujecion sobre los indios que digo de Tacamez y de la bahia de San Mateo, y de Nancabez y de Tovirisimi y Conilope y Papagayos, y Tolona y Quisimos y Coaque y Tonconies y Arampajos, y Pintagua y Caraslobez y Amarejos Cames, Amotopse, Docoa,[1] todos pueblo de la dicha tierra llana que van discúbriendo por la costa; y de todo lo otro de la costa en aquel pueblo de Calangone[2] y Tusco y Seracapez y Calango; alli hay muchas ovejas y puercos y gatos y perros y otros animales, y ansares y palomas, y alli se hacen las mantas que arriba digo de lana y de algodon, y las labores y las cuentas y piezas de plata y oro, y es gente de mucha policia segun lo que parece: tienen muchas herriamentas de cobre y otros metales con que labran sus heredades, y sacan oro y hacen todas maneras de grangeria: tienen los pueblos muy bien trazados de sus calles: tienen muchos generos de hortalizas y tienen mucha ordan y justicia entre si: los mugeres son muy blancas y bien ataviadas, y todas por la mayor parte labranderas. Hay una isla junto a los pueblos donde tienen una casa de oracion hecha a manera de tienda de campo, toldada de muy ricas mantas labradas, adonde tienen una imagen de una muger con un niño en los brazos que tiene por nombre Maria Mescia: cuando alguno tiene alguna enfermedad en alguno miembro, hacele un miembro de plata o de oro, y ofrescela, y le sacrifican delante de la imagen ciertas ovejas en ciertas tiempos.

"Y la otra relacion que a V. A. se envio que habia enviada Pedro Arias de Avila, de las bocas de huego[3] y lagunas, se hallaron en esta misma costa de la tierra firme a la parte del poniente en la dicha mar del Sur; y como esto otro que arriba se dice del Peru es a la parte del Oro de la ciudad de Panama, esto otro de las lagunas es a la parte del poniente, y todo en la misma costa, y llamase la provincia Nicaragua, y todo es en las espaldas, de la tierra firme en la otra mar del Sur; y esto parece por las relaciones que a S. M. se han enviado, y asi se enviara a V. A. de todo lo que viniere, porque su embajador dice que V. A. es en ello instruido Juan de Samanos.[4]"

40. We have consulted facsimiles of the maps of both Ribero and Cabot as published in the "Atlas der Festschrift der Gesellschaft für Erdkunde zu Berlin zur Vierhundert-jæhrigen Feier der Entdeckung Amerika's," by Konrad Kretschmer, Berlin, 1892. The map of Ribero is after Kohl. It shows the coast as far as "p.: . y provincia de la ciudad de Chinchas." This is considerably south of Lima, but no names are given between Puna and this place. The following interesting note is written on the map in the space opposite the region between San Mateo and Chinchas: "Peru. Esta tierra d peru descubrio francisco piçarro en el año de 1527, aqui allo oro y plata qRescate la Jente es de mas razo qlos de las otras partes tiene obejas do qhaze páños tiene grades cibdades muradas y grandes casas de oració donde ba á adorar a sus ydolos quada no llueve ban e procision á ellas." The Ribero map is Tafel XV, and that of Sebastian Cabot is Tafel XVI, in the Kretschmer publication.

41. The name Cojimies is variously spelled by the different early authorities. Both Cieza de Leon and Herrera spell the name Quiximies; in the report of Pizarro it appears as Quisimos; Benzoni writes it Quisimie; while in the Islario General it is given q cimies.

42. Cieza de Leon, op. cit. See pp. 103, 104, preliminary report, Antiquities of Manabi.

43. The work of the Thompson Expedition was carried on for the Peabody Museum

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[1]

[2] ms. calangome.

[3] Sera fuego.

[4] (J de S. was secretary to Carlos V.)

of Harward University for several years. The exploration and excavation of the Chultunes is described in "The Chultunes of Labna," Memoirs of the Peabody Museum, Vol. I. We must state, however, that the exploration of these bottle-shaped holes in Yucatan showed that they were not tombs, but were undoubtedly reservoirs for conserving water.

44. Mason's paper first appeared in the Smithsonian Report for 1876. In 1884 he published another monograph "The Guesde Collection of Antiquities in Pointe-A-Pitre, Guadeloupe, West Indies." Both papers were republished in 1899 by the Smithsonian Institution. From the second paper we quote on p. 109, in our notice of the wooden chair which is 31 inches (78.7 cm.) high. Nos. 8 and 9 of our Plate I are taken from Figs. 24 and 23 of Mason's first monograph.

45. The work of J. Walter Fewkes is the most extensive study of Antillean archeology which has ever been made. The general results of a number of expeditions have been brought out in "The Aborigines of Porto Rico and Neighboring Islands," Twenty-fifth Annual Report of the Bureau of American Ethnology, Washington, 1907. The section relating to *duhos* will be found on pp. 202, 207. The *duho* from Santo Domingo (our No. 10, Plate I) is on Plate XCIII, b.

46. Fewkes, op. cit., Plate XCIII, a.

47. Vicente Restrepo, "Los Chibchas antes de la Conquista Española," Bogota, 1895, pp. 117, 118; Atlas, Plate XVII, No. 47.

48. Liborio Zerda, "El Dorado," p. 59, Fig. 29, illustration of gold *duho*. On pp. 17, 18, and Fig. 5, he describes and illustrates the clay seat to which we refer in the next paragraph.

49. The work of J. E. Duerden was published in the Journal of the Institute of Jamaica, Vol. II, No. 4, July, 1897. The metates are illustrated on Plate 4.

50. The important work of C. V. Hartman, describing his excavations in Nicoya, was published in the Memoirs of the Carnegie Museum, Pittsburg, Vol. III, No. 1, 1907. In this monograph are illustrated a very large series of metates of an elaborate type. They are as characteristic of this region, and generally of as localized a type, as are the stone seats of Manabi.

51. Karl von den Steinen, "Durch Central-Brasilien, Expedition zur erforschung des Schingu." Leipzig, 1886.

52. Paul Ehrenreich, "Anthropologischen Studien über die Urbewohner Brasiliens vornehmlich der Staaten Matto Grosso, Goyaz und Amazonas." Braunschweig, 1897.

53. Second Part, Plate I, opposite p. 464.

54. Im Thurn, "Among the Indians of Guiana, being Sketches chiefly Anthropologic from the Interior of British Guiana," London, 1883, pp. 297, 298.

55. Consult Professor W. H. Holmes, "Ancient Art of the Province of Chiriqui, Colombia," published in the Sixth Annual Report of the Bureau of Ethnology, 1888. Dr. George Grant MacCurdy has in press an exhaustive memoir on the archeology of Chiriqui, based on the Marsh Collection in the Peabody Museum, Yale University.

56. C. V. Hartman, "Etnografiska undersökningar öfver aztekerna i Salvador," Ymer, H. 3, 1901, p. 301, fig. 7[a].

57. Henry Rowan Lemley, "Who was El Dorado?" Century Magazine, October, 1891, pp. 881, 892; fig. on p. 891.

58. C. H. De Göeje, "Beiträge zur Völkerkunde von Surinam," Int. Arch. für Ethnographie, Bd. XIX, 1908, Tafel I.

59. Published in the Int. Arch. für Ethnographie, Bd. III, 1890, Tafel XIII, figures 19[a] and 19[b].

60. Cushing, "A Preliminary Report on the Exploration of Ancient Key-Dweller Remains on the Gulf Coast of Florida," Proceedings of the American Philosophical Society, Vol. XXXV, No. 153, Philadelphia, 1897. We quote further, from Cushing, this very suggestive paragraph about the seat. He writes on p. 100: "I would call attention to the fact that it is sloped, or higher at one end than at the other. This indicated that it was designed for use *astride*, so to say, as is also indicated in other, even unsloped specimens, by the slant of the pegs or feet, which adapted some of these stools for use in canoes, lengthwise, but not crosswise. It is well known that the Antilleans, whose stools, while far more elaborate than those we found, were not unlike them in style, had a fashion of sitting astride or lengthwise of them. While this may, with many other points, signify connection, it far more certainly signifies that this curious way of sitting was established by the use of long stools in narrow canoes, and possibly also, by use of the sitting-hammock."

61. Oviedo, op. cit., Tomo IV, Lib. XLII, Cap. XIII, p. 109.

62. Max Schmidt, "Indianerstudien in Zentralbrasilien," p. 179, fig. 32, and p. 180, fig. 33.

63. The illustrated catalogue of the collection of Señor Arango was published in Medellin in 1905. The figure referred to is No. 521, Plate XVII.

64. One of the most important works on ancient Peru is "Historia del Nuevo Mundo," by P. Bernabe Cobo, published in four volumes, Sevilla, 1890–95. The statement regarding seats is found in Tomo IV, Lib. decimocuarto, Cap. IV, p. 172.

Pedro Pizarro, in "Relacion del Descubrimiento y Conquista de los Reinos del Peru," p. 249, writes about the seat of Atahualpa as follows: "Estaba sentado este Señor en un duo de madera de altor de poco mas de un palmo: este duo era de madera colorada muy linda, y teniánle siempre tapado con una manta muy delgada, aunque estuviese el sentado en él." We also find this notice in the work of Xerez, "Y el tirano estaba á la puerta de su aposento sentado en un asiento bajo." Op. cit., Madrid Edition, 1891, p. 82.

65. Cobo, op. cit. Tomo III, Lib. Duodecimo, Cap. XXXVI, p. 287.

66. Cobo, op. cit. Tomo III, Lib. Duodecimo, Cap. XXV, p. 235.

67. Charles Wiener, "Pérou et Bolivie," p. 522.

68. Mariano Rivero and Juan Diego Tschudi, "Antigüedades Peruanas," lamina XXXIX.

69. M. Gonzalez de la Rosa, "Les Caras de l'Equateur et les Premiers Résultats de l'Expédition G. Heye sous la Direction de M. Saville," 11 pp. Extrait du Journal de la Société des Américanistes de Paris, Nouvelle série, tome V, numéro 1, 1908. Mr. de la Rosa also published, in Spanish, a somewhat similar article under the title "Las antigüedades de Manabi del Professor Saville y el estudio de la civilización de los Caras," in Revista Historica of Lima, Peru, Tomo II, Trimestre IV, pp. 569–575, 1907.

70. Adolph F. Bandelier, "The Islands of Titicaca and Koati," published by the Hispanic Society of America, New York, 1910. The reference to Keros will be found in Note 15, p. 243.

71. The work of Baessler is one of most important sources of material from Peru which has been published up to the present time.

72. The statement regarding the goddess emerald mentioned by Garcilasso, will be found in the notes of the preliminary report, p. 105.

73. The important Mexican work known as the "Codex Borbonicus," is an ancient book of the Nahuans of Mexico, painted on maguey paper. It is preserved in the library

of the Chamber of Deputies, Paris, and was first published in 1889. The page referred to is the thirteenth of the Tonalamatl, being the eleventh page of the reproduction.

74. Consult the various elucidations of the Mexican codices by Dr. Seler, published in both German and English through the generosity of the Duke of Loubat.

75. See pp. 62 and 63 of the preliminary report.

76. George A. Dorsey, op. cit. This broken metate is illustrated on Plate LXVIII. It will be well for us to call attention to the importance of this paper by Dorsey, as it is the only study which has been published of the archæology of the Island of La Plata. Aside from our own work, this is the only original piece of archæological research which has been carried on along the Ecuadorian coast, and the publication should be at hand in studying our results of investigations on the mainland.

77. Dorsey, op. cit., pp. 259–260, and Plate XLIII. Dorsey also gives an outline drawing, natural size, of this remarkable axe, see his Fig. 42.

78. The report of Daniel G. Brinton was published in the "Report of the Madrid Commission," 1892, p. 49–50.

79. Ulloa, "Relacion Historica del Viage a la America Meridional," Vol. II, pp. 619, 620 and 624, Plate XV. Madrid, 1748.

80. Leopold Batres, "Civilizacion de Algunas de la Diferentes Tribus que Habitaron el Territorio Hoy Mexicano, en la Antigüedad." Lam. XV, No. 8, Mexico, 1888.

81. Benzoni, op. cit., see our preliminary report, p. 109.

82. Suarez, "Historia General de la Republica del Ecuador." Tomo I, footnote on pp. 257–258.

83. Gonzalez de la Rosa, op. cit. pp. 573–574.

84. W. H. Holmes, op. cit. p. 39.

85. Max Uhle, in his work, "Pachacamac," published by the University of Pennsylvania in 1903, writes regarding this form of vessel as follows: "One special ceramic type, a vase or flask with a long and thin neck and conical bottom, was named 'arybal' by Hamy, from its resemblance to certain ancient Greek types. This type is found all over Peru, Ecuador, Bolivia, in a part of Chili and Argentina, where it was carried by the conquest of the Incas. The same may be said of some other ceramic types related to the former in form and decoration, such as plates, jars, various kinds of jugs of the Cuzco type, concerning which there has long been a general tacit agreement." p. 17.

86. Saville, "Archæological Researches on the Coast of Esmeraldas (Ecuador)," Verhandlungen des XVI. Internationalen Amerikanistenkongresses, Wien, 1909, p. 343.

87. L. Huezey, "Le Tresor de Cuenca," La Gazette des Beaux-Arts, Paris, 1870, p. 12.

88. Cobo, op. cit. Tomo IV, Cap. XXXIV, p. 135. We quote from the work of Cristobal de Molina, "An Account of the Fables and Rites of the Incas," published in the series of translations by Markham under the title "Narratives of the Rites and Laws of the Incas," Hakluyt Society, 1873.

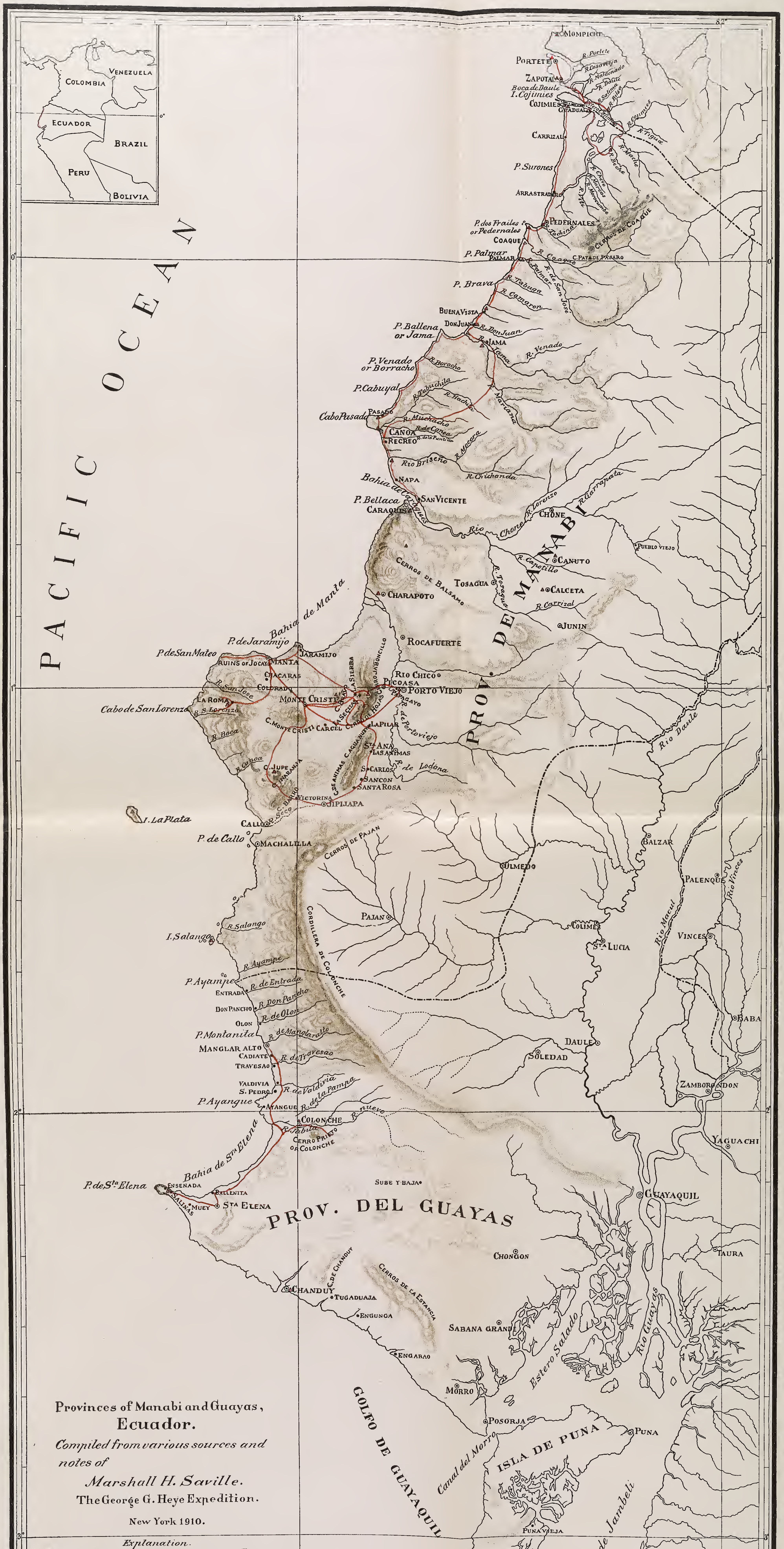
89. Saville, op. cit. pp. 340–341.

90. Dorsey, op. cit. p. 278, and Plate CII.

91. Eduard Seler, "Peruanische Alterthümer, insbesondere Altperuanische Gefässe, etc., Plate 46.

92. The report of Lieut. J. M. Gilliss was published in Washington in 1855. The chapter "A Description of the Indian antiquities brought from Chile and Peru, by the United States Naval Astronomical Expedition," by Thomas Ewbank is in Vol. II. The copper weapons are figured on p. 138.

93. Bandelier, op. cit., Plate XXX, facing p. 168.


Provinces of Manabi and Guayas,
Ecuador.
Compiled from various sources and notes of
Marshall H. Saville.
The George G. Heye Expedition.
New York 1910.
Explanation.
Capitals of Provinces
Towns.
Settlements
Sites of Archeological remains.
Topographic Station of Expedition
Boundary of Provinces
Route of Expedition.
0 1 2 3 4 5 6 7 8 9 10 15 20 30 miles.
COLOMBIA
VENEZUELA
ECUADOR
BRAZIL
PERU
BOLIVIA
PACIFIC OCEAN
PROV. DE MANABI
PROV. DEL GUAYAS
GOLFO DE GUAYAQUIL
ISLA DE PUNA
MOMPICHE
PORTETE
ZAPOTAL
Boca de Daule
I. Cojimies
COJIMIES
GUADUAL
R. Portete
R. Casanija
R. Maldonado
R. Daule
R. Salima
R. Bilsa
Estero Cojimies
R. Cojimies
R. Tigua
R. Mache
R. Beche
CARRIZAL
P. Surones
ARRASTRADERO
R. Chave
R. Marcos
R. Monocumbe
R. Viti
P. dos Frailes or Pedernales
PEDERNALES
R. Tachina
CERROS DE COAQUE
COAQUE
P. Palmar
PALMAR
R. Coaque
C. PATA DE PAJARO
R. Palmar
R. de San José
P. Brava
R. Tabuga
R. Camaron
BUENA VISTA
DON JUAN
R. Don Juan
P. Ballena or Jama
JAMA
R. Jama
R. Venado
P. Venado or Borracho
R. Boracho
P. Cabuyal
R. Tabuchila
R. Hachila
R. Mariana
Cabo Pasado
PASADO
R. Muchacho
R. de Canea
CANOA
RECREO
R. de la Puntilla
R. Mocora
Rio Briseño
R. Chichanda
Bahia de Caraques
NAPA
P. Bellaca
SAN VICENTE
CARAQUES
Rio Chone
R. Lorenzo
R. Garrapata
CHONE
PUEBLO VIEJO
CERROS DE BALSAMO
R. Capotillo
CANUTO
TOSAGUA
R. Tosagua
CALCETA
CHARAPOTO
R. Carrizal
JUNIN
Bahia de Manta
P. de Jaramijo
JARAMIJO
ROCAFUERTE
P. de San Mateo
RUINS OF JOCAY
MANTA
CHACARAS
COLORADO
CERRO JABONCILLO
LA SIERRA
RIO CHICO
PICOASA
PORTO VIEJO
LA ROMA
R. San Jose
MONTE CRISTI
C. BRAVO
LA SEQUITA
CERRO DE HOJAS
PAPAGAYO
Cabo de San Lorenzo
R. S. Lorenzo
C. MONTE CRISTI
CARCEL
LA PILAR
R. de Portoviejo
R. Boca
C. AGUANUEVA
STA ANA
LAS ANIMAS
C. DE ANIMAS
R. Canoa
C. JUPE
NARANJA
S. CARLOS
R. de Lodana
SANCON
SANTA ROSA
C. BARRO
VICTORINA
JIPIJAPA
I. La Plata
CALLO
R. Seco
P. de Callo
MACHALILLA
CERROS DE PAJAN
Rio Daule
BALZAR
OLMEDO
PALENQUE
Rio Vinces
PAJAN
R. Salango
I. Salango
COLIMES
STA LUCIA
Rio Macul
VINCES
CORDILLERA DE COLONCHE
R. Ayampe
P. Ayampe
R. de Entrada
ENTRADA
R. Don Pancho
DON PANCHO
R. de Olon
OLON
BABA
P. Montanita
R. de Manglaralto
MANGLAR ALTO
DAULE
SOLEDAD
CADIATE
R. de Travesao
TRAVESAO
VALDIVIA
S. PEDRO
R. de Valdivia
ZAMBOROMDON
P. Ayangue
AYANGUE
R. de la Pampa
COLONCHE
R. nuevo
R. Jabila
YAGUACHI
CERRO PRIETO OR COLONCHE
Bahia de Sta Elena
P. de Sta Elena
ENSENADA
BALLENITA
SALINAS
MUEY
STA ELENA
SUBE Y BAJA
GUAYAQUIL
CHONGON
TAURA
C. DE CHANDUY
CERROS DE LA ESTANCIA
CHANDUY
TUGADUAJA
ENGUNGA
SABANA GRANDE
Estero Salado
Rio Guayas
ENGARAO
MORRO
POSORJA
PUNA
Canal del Morro
PUNA VIEJA
Canal de Jambeli



Cape Santa Elena



Island of La Plata



Town of Manglar Alto



Town of Machalilla



Bluffs near Bahia de Caraques



Street Scene, Town of Bahia de Caraques



Arid Zone, Village of La Roma.



Humid Zone near La Roma.



Cerro Animas near San Carlos.



Scene in Village of San Carlos.

COCKAYNE — BOSTON



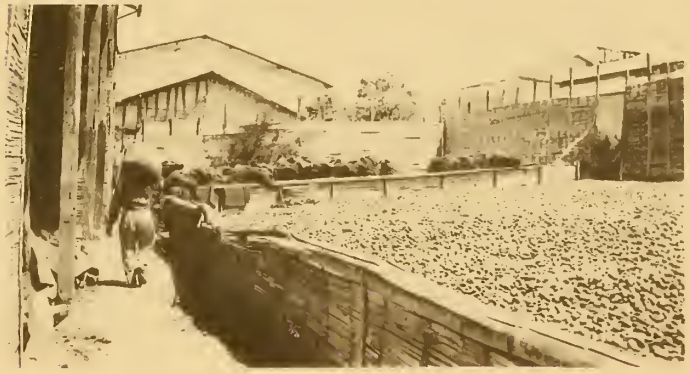
Section of Water Front, Manta.



Manta Bay, Cerro Jaboncillo in the Background.



A View in Manta Looking towards Monte Cristi.



A Bin of Ivory Nuts in Manta.



Loading Ivory Nuts on Launches to Transport to Steamer, Manta.



Fisherfolk Drawing the Net near Manta













Corrales or House-Sites, Ruins of Jocay, Back of Manta.









Scenes along Inland Trail at Cape Pasado between Canoa and Jama

COCKAYNE — BOSTON



Southern Part of Cape Pasado, Showing Mist from Heavy Surf.



Rocky Point near Palmar at the Equator.



Beach near Palmar at the Equator.

COCKAYNE — BOSTON



Rocky Beach South of Coaque. Pedernales Point in the distance.



Mouth of the Coaque River. Pedernales Point in the distance.



Point between Pedernales and Coaque

COCKAYNE — BOSTON



Town and Hill of Monte Cristi.



Town of Monte Cristi, Hill partly covered by Fog.



Municipal Building, Monte Cristi.



Festival of "Los San Juanes" Monte Cristi.



Oven for Baking Bread, Monte Cristi.



A Well in Monte Cristi.









TYPES OF BAMBOO HOUSES, MANABI.

COCKAYNE—BOSTON



Stone Tiger Head, Corral 1, Cerro Jaboncillo



Stone Seats in situ, near Corrales 41 and 42, Cerro Jaboncillo



Mound at Papagayo, near Porto Viejo



Corral near Cerro Animas

COCKAYNE — BOSTON



Panorama of Cerro de Hojas from Cerro Jaboncillo.

COCKAYNE—BOSTON



Stone Column near Mound 1, Southwestern Flank of Cerro Jaboncillo.



Base of large Pottery Vessel in Mound 1.

COCKAYNE—BOSTON



View of Northern Side of Mound 2, Cerro Jaboncillo.



View of Southwestern Corner of Mound 3, Cerro Jaboncillo.

COCKAYNE — BOSTON



Pottery Bowl found over Skull of Child, Mound 2



Large Olla found in Baked Clay Floor of Corral 30

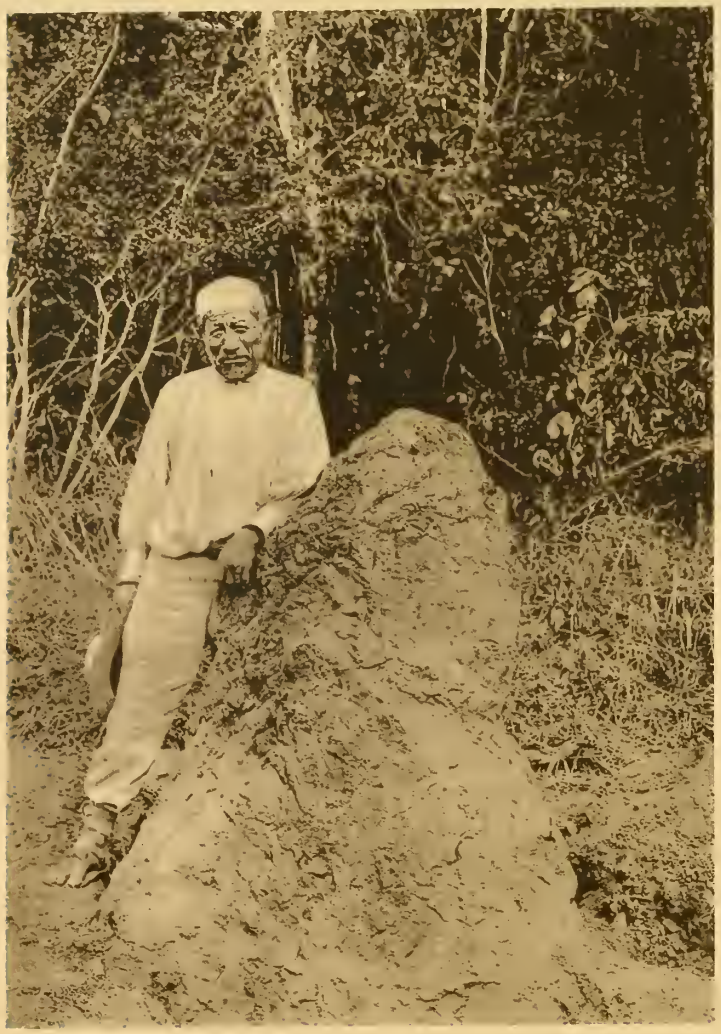


Pottery Vessel with Stone Disc Inside, found under Floor of Corral 50



Nested Ollas found in a Corner of Corral 48

COCKAYNE — BOSTON



Inclined Monolith near Northern End of Corral 1.



Inclined Monolith near Northwestern End of Corral 38.

COCKAYNE — BOSTON



THREE INCLINED STONES AT NORTHERN END OF CORRAL 1.



DEPRESSION IN THE SOUTHERN PART OF CORRAL 1.

COCKAYNE — BOSTON



Corrales 2 and 3 on Western Flank of Cerro Jaboncillo.



Corral 14 on Western Flank of Cerro Jaboncillo.

COCKAYNE—BOSTON



Corral 36, Western Flank of Cerro Jaboncillo showing Rough Wall on one side, and Dense Jungle.



Corral 39, Western Flank of Cerro Jaboncillo, showing House Platform.

COCKAYNE — BOSTON



Corral 30, showing Baked Clay Floor



Corral 40, showing Raised Baked Clay Platform

COCKAYNE—BOSTON



Corral 41, Summit of Cerro Jaboncillo, showing Rough Stone Wall and Fragments of Seats.



Corral 43, Summit of Cerro Jaboncillo, showing Rude Wall in the Foreground.

COCKAYNE — BOSTON



Corral 15, Western Flank of Cerro Jaboncillo, showing Broken Seats in situ.



Corral 18, Western Flank of Cerro Jaboncillo, showing Stone Seat.

COCKAYNE—BOSTON



Large Deep Well-like Excavation Cut in the Solid Rock between Corrales 45 and 46, Summit of Cerro Jaboncillo. Probably a Tomb.



Mouth of Bottle-shaped Excavation Cut in the Solid Rock, Southwestern Ridge near Summit of Cerro Jaboncillo. Probably a Tomb.

CUCKAYNE — BOSTON



Stone Facing Mouth of Well in a Ravine between Cerro Jaboncillo and Cerro de Hojas



Mouth of Well-like Smelting Furnace near Base of Western Flank of Cerro Jaboncillo

COCKAYNE — BOSTON



Graded Way, Northern End of Corral 35, Cerro Jaboncillo.



Causeway Across Small Ravine on Lower Part of Observatory Ridge, Cerro Jaboncillo.

COCKAYNE—BOSTON



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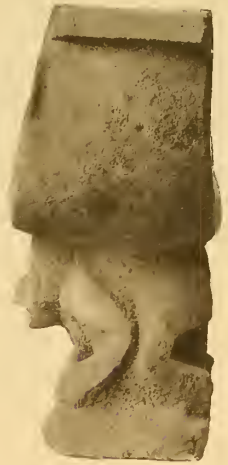
6

Seats from Cerro Jaboncillo.

COCKAYNE — BOSTON



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Seats from Cerro Jaboncillo and Cerro Agua Nueva.

COCKAYNE — BOSTON



Seats from Cerro Jaboncillo.

COCKAYNE — BOSTON



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Seats from Cerro Agua Nueva.

COCKAYNE — BOSTON



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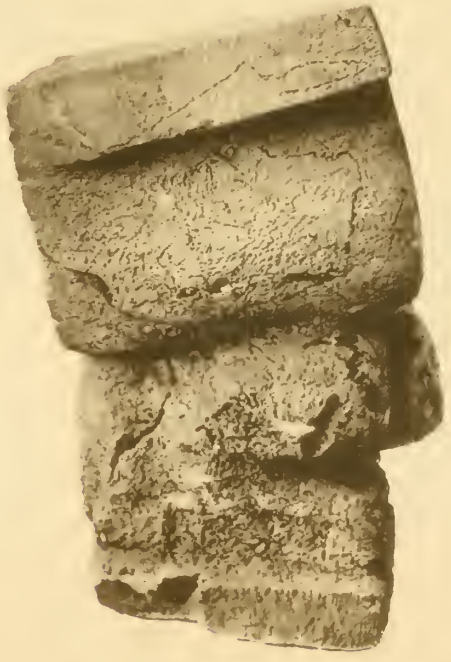


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SEATS FROM CERRO AGUA NUEVA.



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Seat from Cerro Jaboncillo.

COCKAYNE — BOSTON



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Seats from Cerro Jaboncillo.

COCKAYNE — BOSTON



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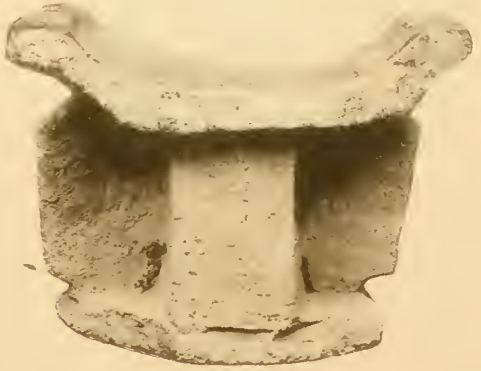
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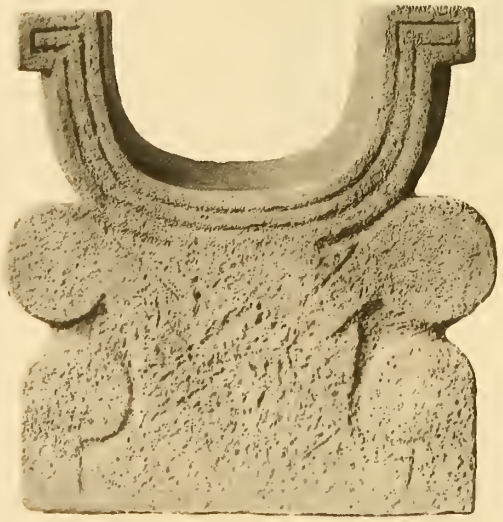
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Seats from Cerro Jaboncillo.

COCKAYNE — BOSTON



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Seat from Cerro Jaboncillo.

COCKAYNE — BOSTON



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Seats from Cerro de Hojas and Cerro Jaboncillo.

COCKAYNE — BOSTON



1 2 3

Stone Figures from Manabi, in Berlin Ethnographical Museum.

COCKAYNE — BOSTON



1 2 3 4

HUMAN FIGURES FROM CERRO JABONCILLO.

COCKAYNE — BOSTON



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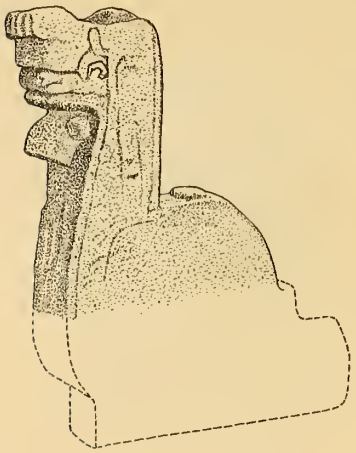
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HUMAN FIGURES FROM CERRO JABONCILLO.

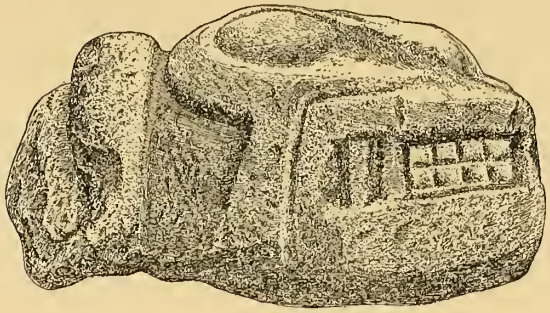
COCKAYNE — BOSTON



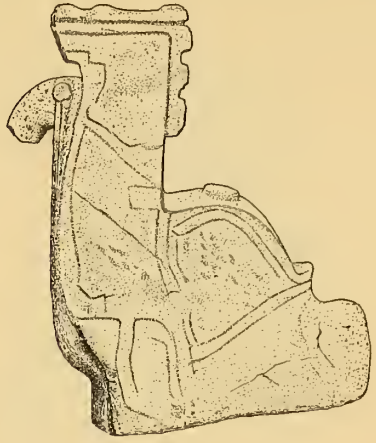
Stone Heads and Figures from Cerro Jaboncillo.



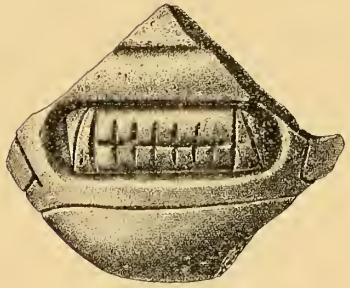
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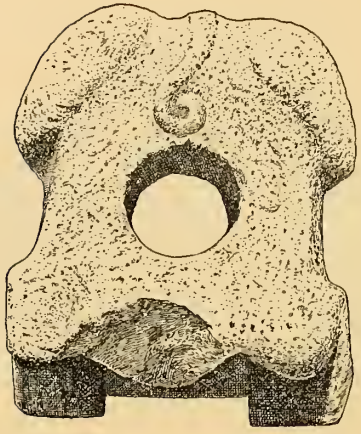
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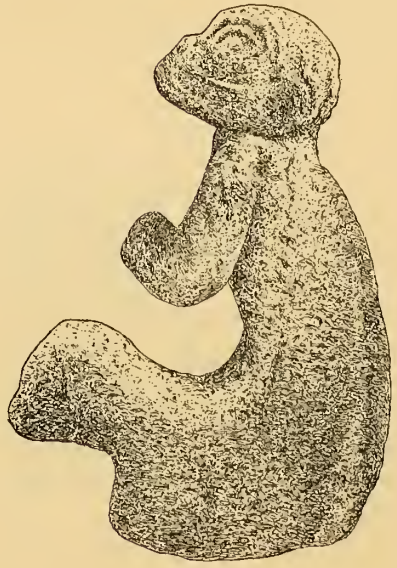
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Stone Sculptures.



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Animal Sculptures from Cerro Jaboncillo.

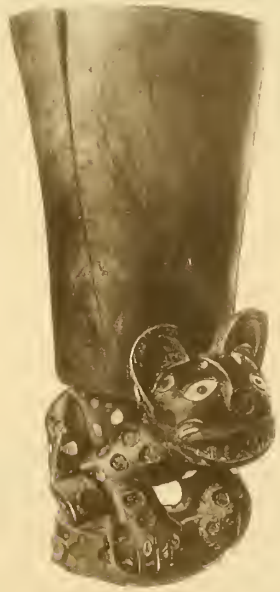
COCKAYNE — BOSTON



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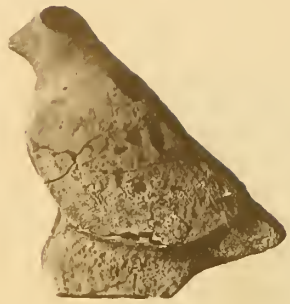
Animal Figure from Cerro Jaboncillo.

Wooden Cup from Peru.
After Baessler.

COCKAYNE — BOSTON



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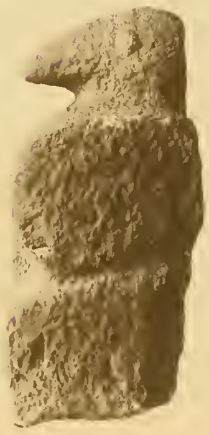
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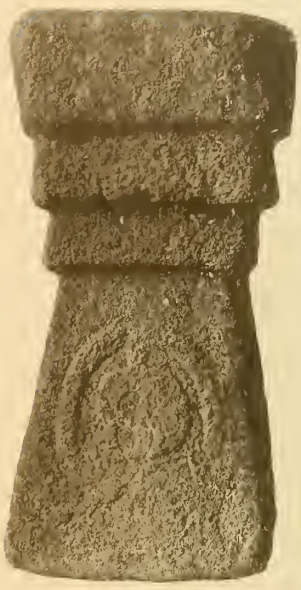
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Birds from Cerro Jaboncillo.

COCKAYNE — BOSTON



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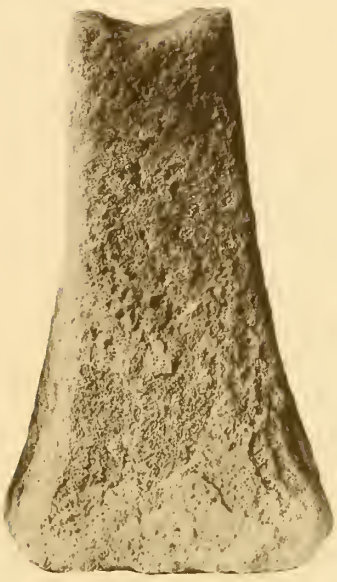
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Columns from Cerro Jaboncillo.

COCKAYNE — BOSTON



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Columns from Cerro Jaboncillo.

COCKAYNE — BOSTON



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Bas-reliefs from Cerro Jaboncillo.

COCKAYNE—BOSTON









Bas-reliefs from Cerro Jaboncillo and La Roma District.

COCKAYNE—BOSTON


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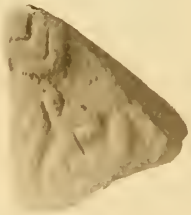

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Fragments of Bas-reliefs from Cerro Jaboncillo.

COCKAYNE—BOSTON



Fragment of Bas-reliefs from Cerro Jaboncillo.

COCKAYNE — BOSTON



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Bas-reliefs from Cerro Jaboncillo and Cerro Jupe.

COCKAYNE — BOSTON



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Bas-reliefs from Cerro Jaboncillo.

COCKAYNE — BOSTON



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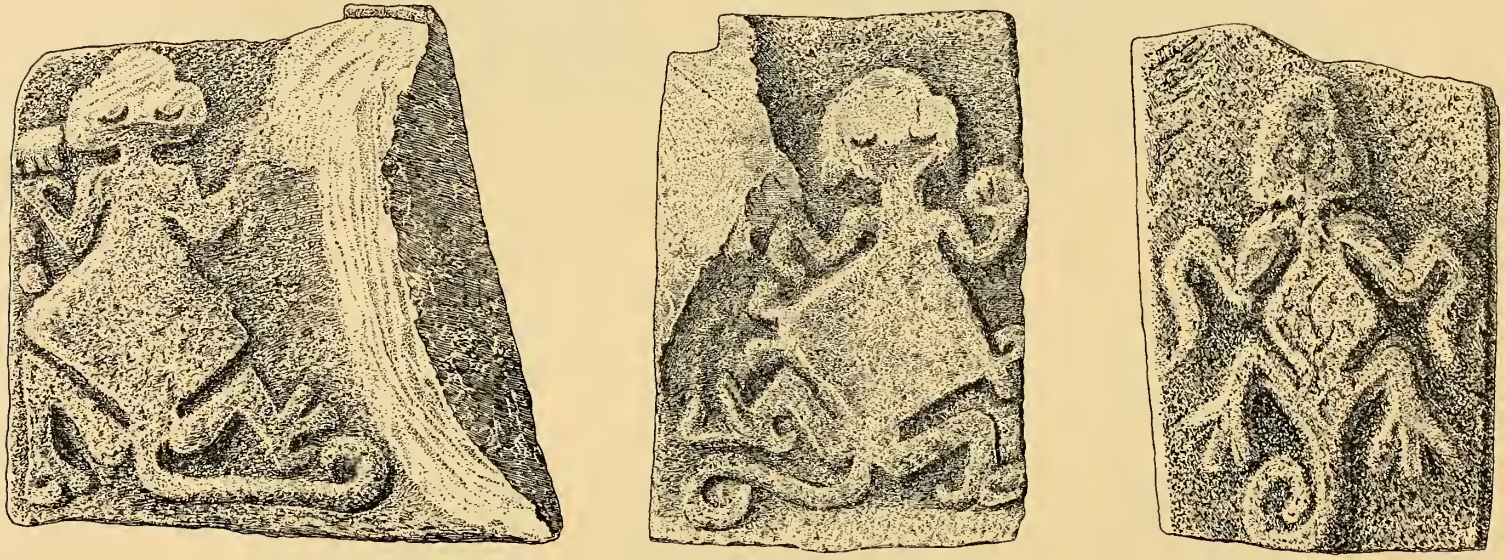


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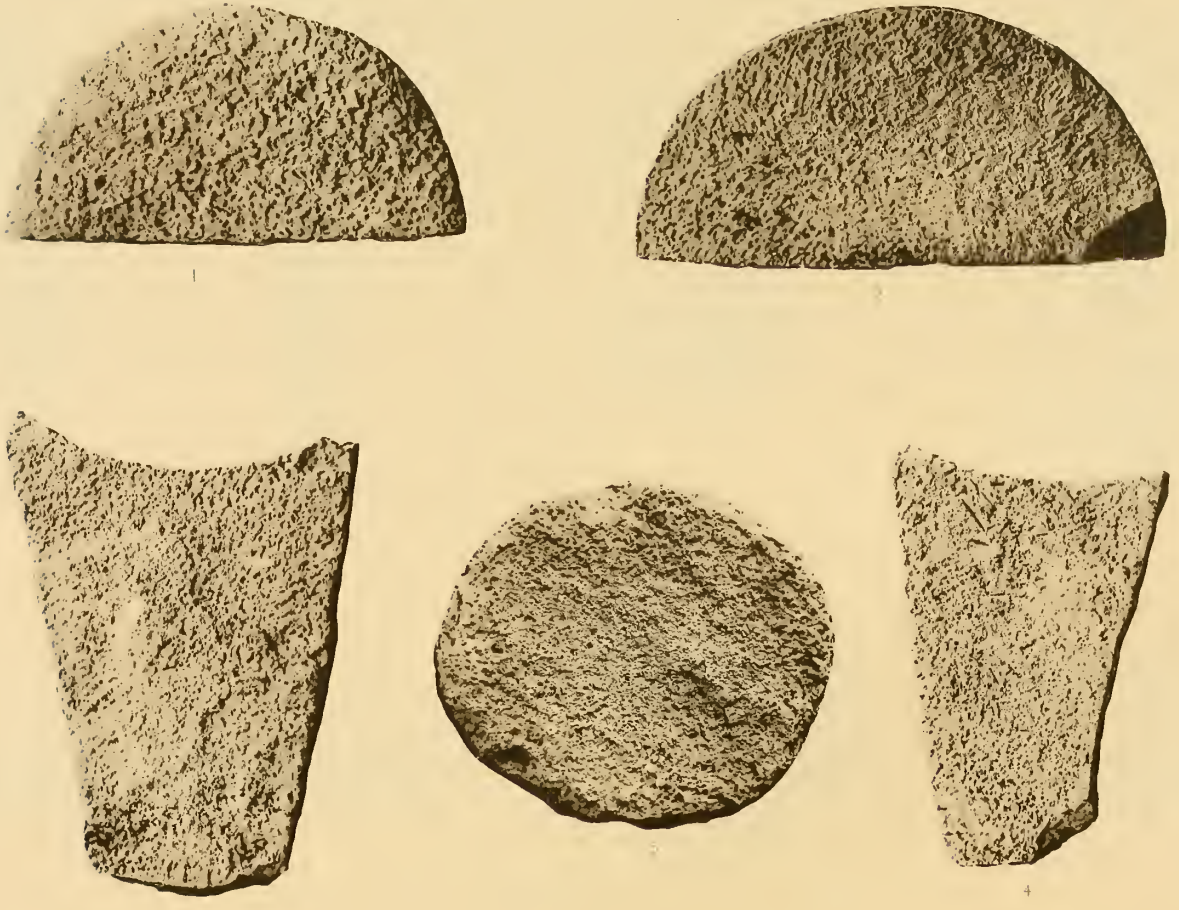
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BAS-RELIEFS FROM CERRO JABONCILLO.



1 2 3

Lizard-like Sculptures from Cerro Jaboncillo.



Semi-lunar and Other Shaped Stones from Cerro Jaboncillo.

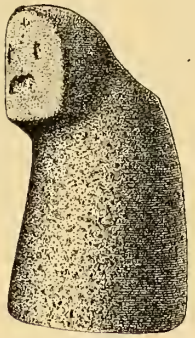
COCKAYNE — BOSTON



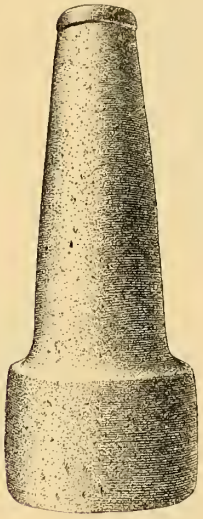
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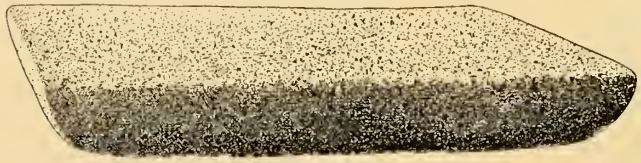
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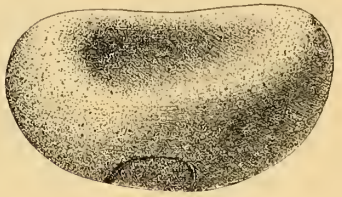
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6

Metates, Mortars and Pestles.



Stone Axes from Manabi.

COCKAYNE — BOSTON



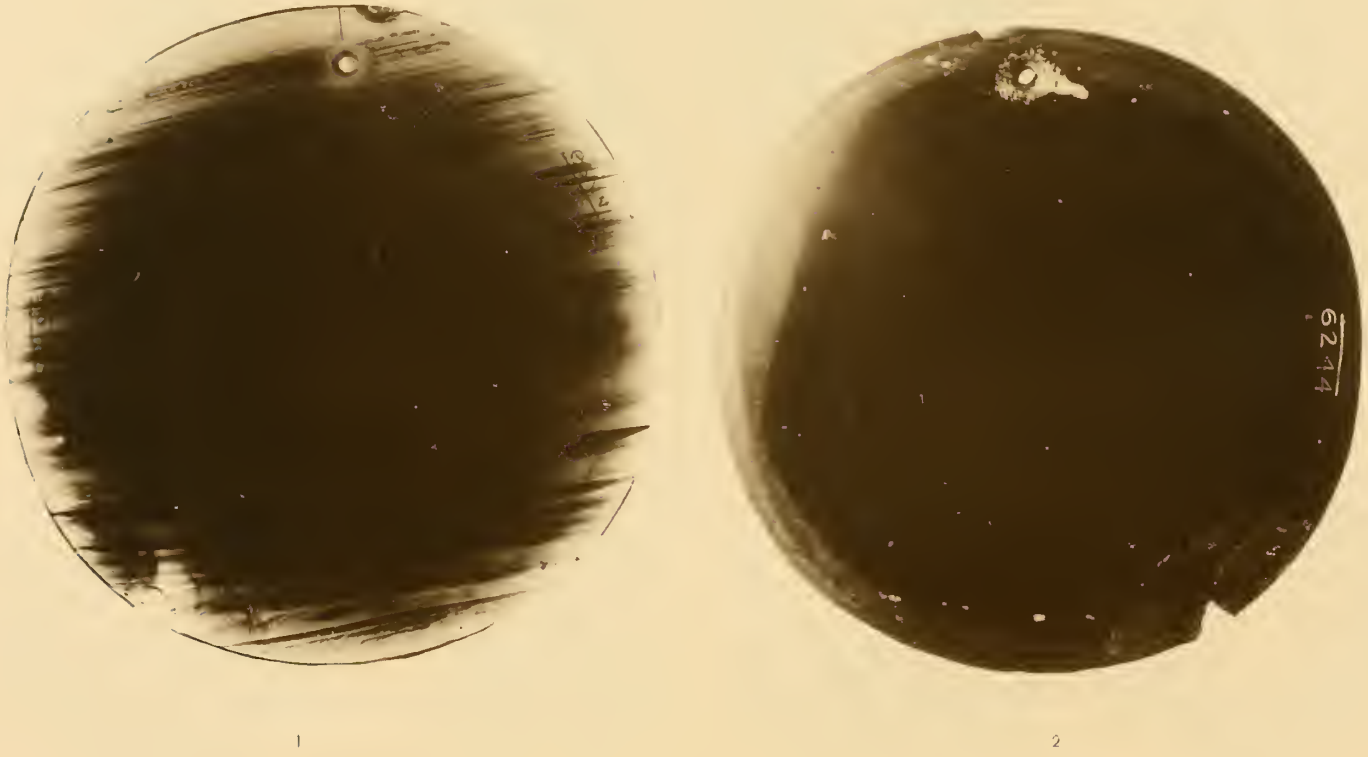
Weights and Polishing Stones from Cerro Jaboncillo.

COCKAYNE — BOSTON



Obsidian and Chalcedony Implements and Material from Cerro Jaboncillo.

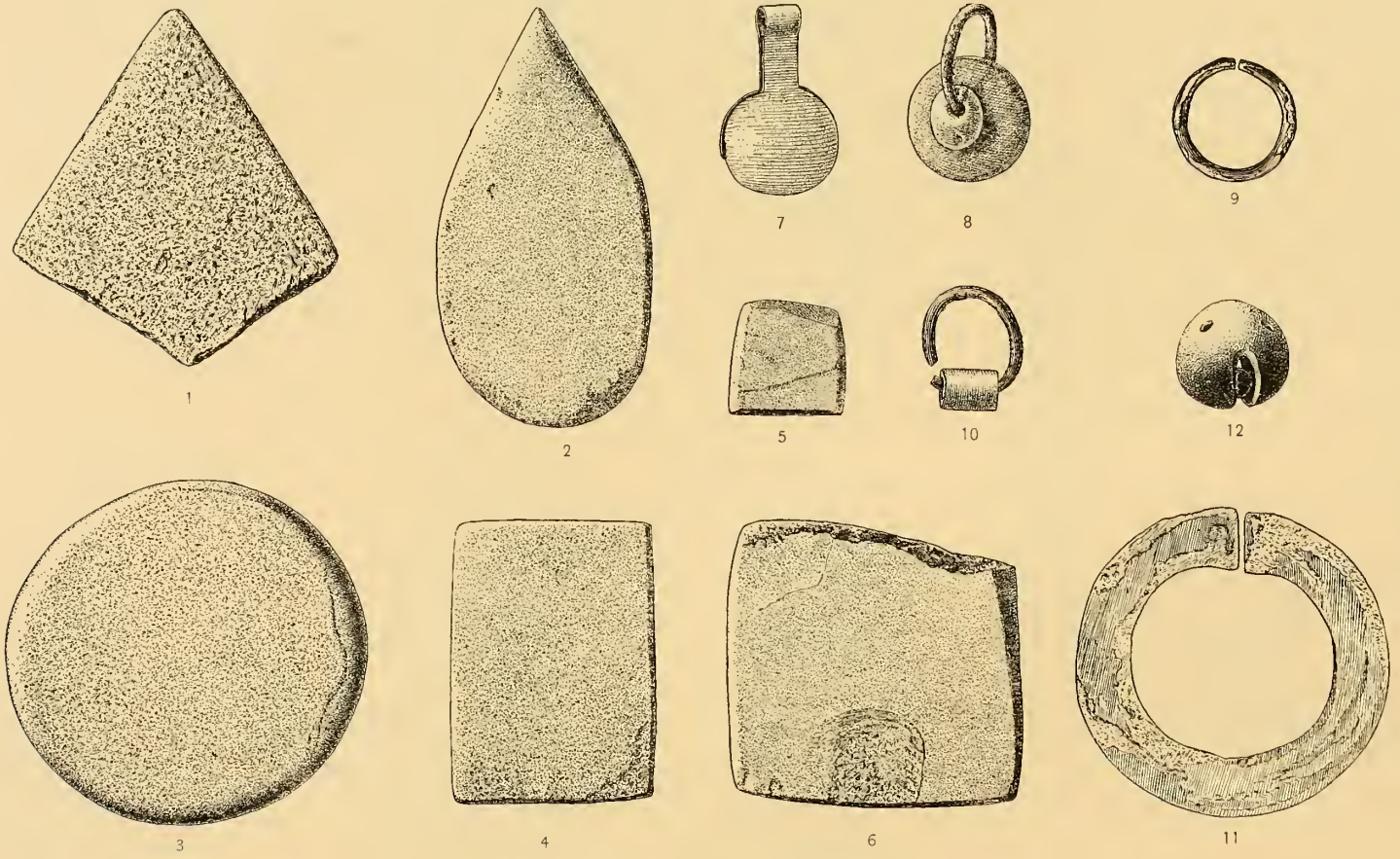
COCKAYNE — BOSTON



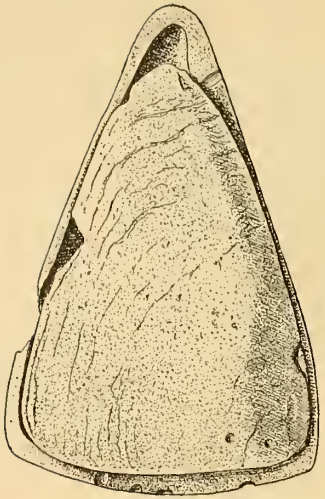
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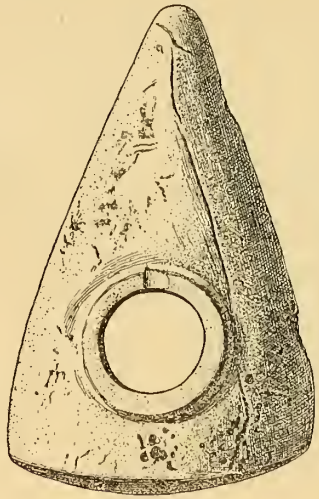
Obsidian Mirror from Cerro Jaboncillo.

COCKAYNE — BOSTON



Record Stones, Metal Objects and Ornaments.


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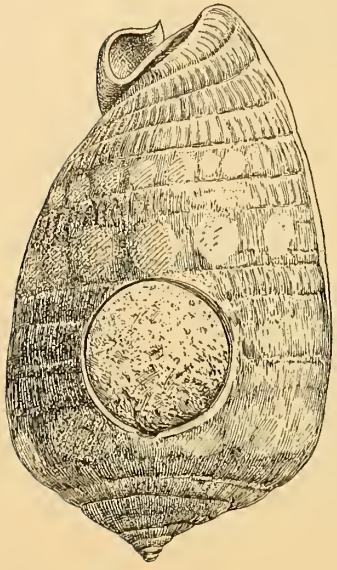

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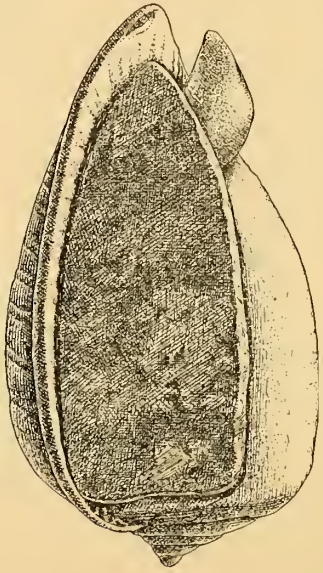

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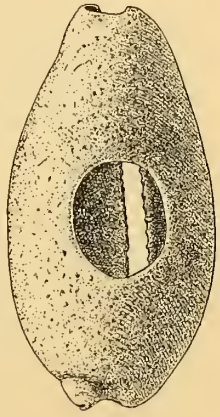

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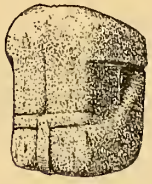

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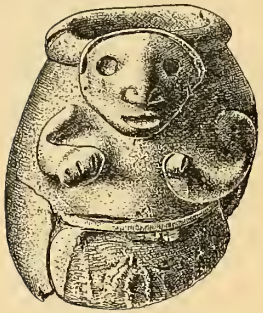

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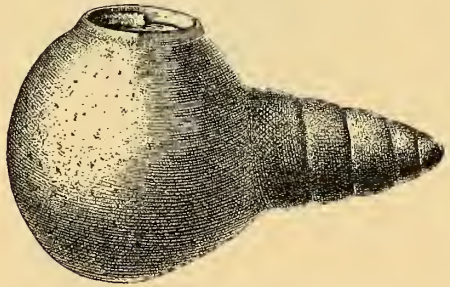

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8

OBJECTS OF SHELL AND BONE FROM CERRO JABONCILLO.



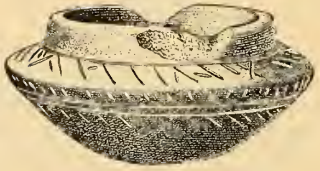
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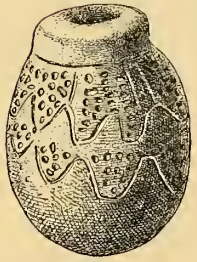
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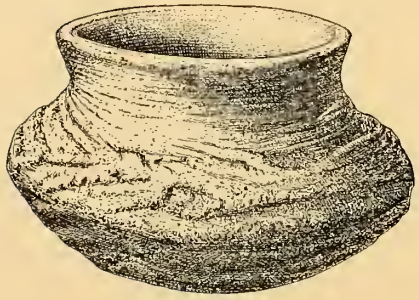
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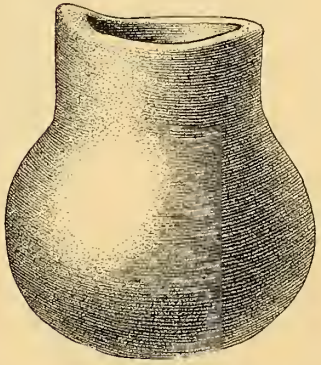
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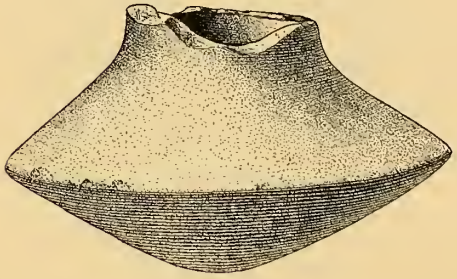
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Small Pottery Vessels from Cerro Jaboncillo and Papagayo.



Pottery Vessels from Cerro Jaboncillo and Vicinity.

COCKAYNE — BOSTON



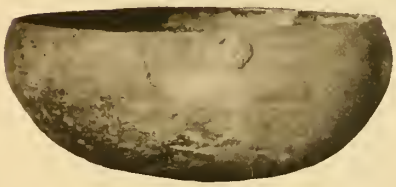
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Pottery Bowls from Cerro Jaboncillo.

COCKAYNE—BOSTON



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Pottery Bowls from Cerro Jaboncillo.

COCKAYNE—BOSTON



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Pottery Vessels from Cerro Jaboncillo.

COCKAYNE—BOSTON



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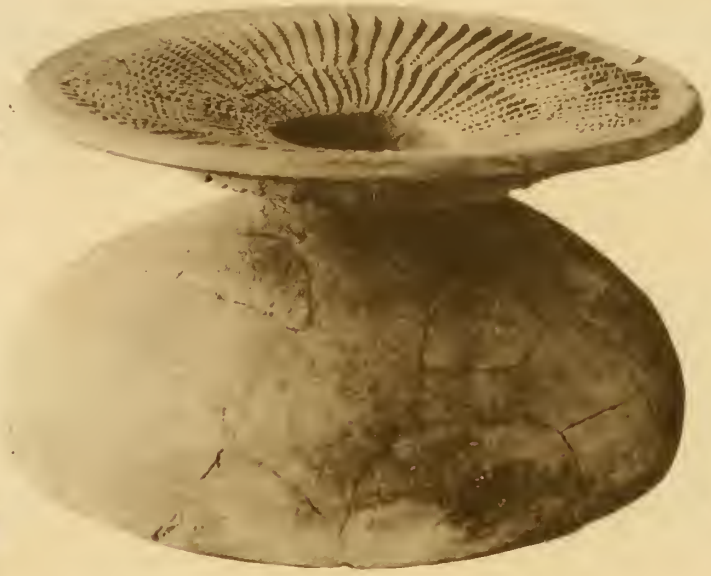
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Pottery Vessels from Cerro Jaboncillo.

COCKAYNE — BOSTON



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Pottery Goblets from Cerro Jaboncillo.

COCKAYNE—BOSTON



Necks of Ollas from La Roma District.

COCKAYNE — BOSTON

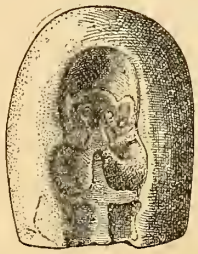


Fragments of Vessels from Cerro Jaboncillo.

COCKAYNE — BOSTON


1

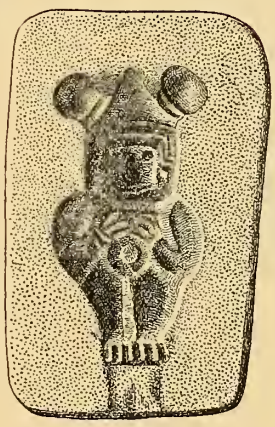

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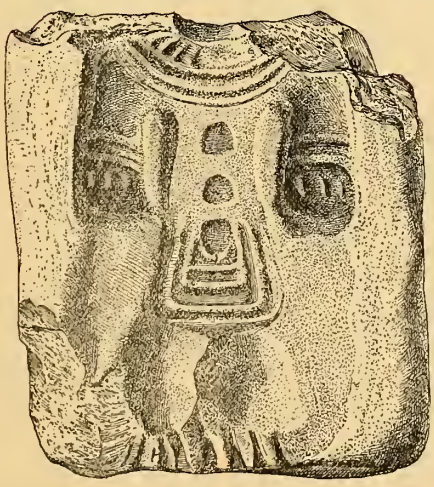

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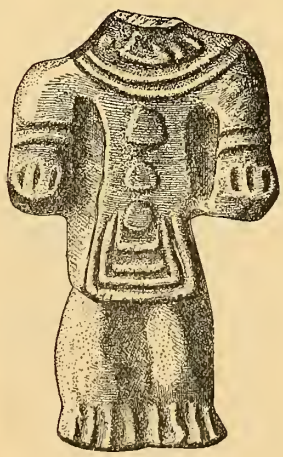

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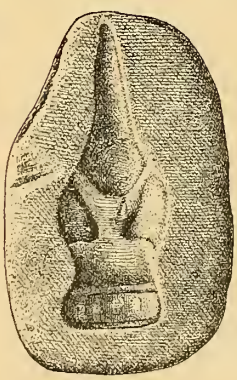

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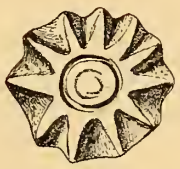

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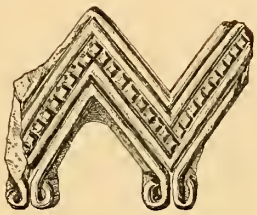

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Moulds and Casts from Same.



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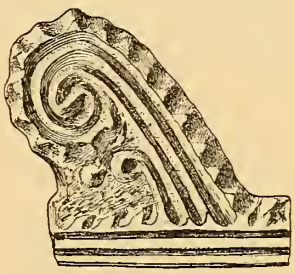
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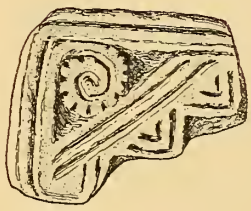
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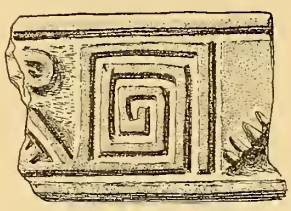
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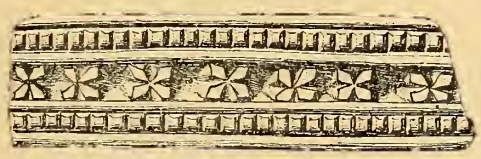
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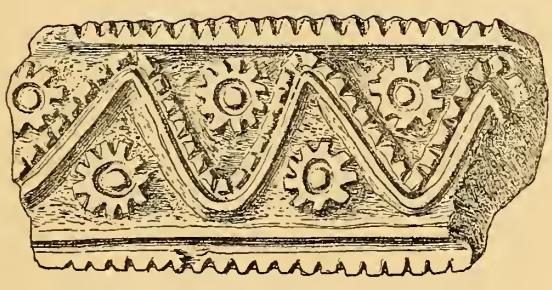
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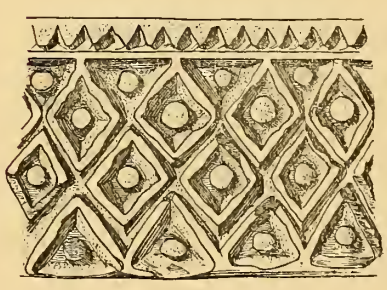
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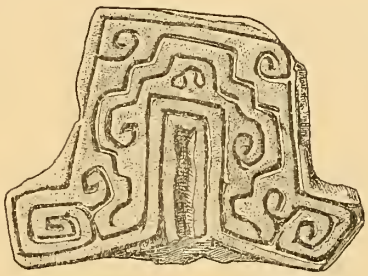


14

STAMPS.



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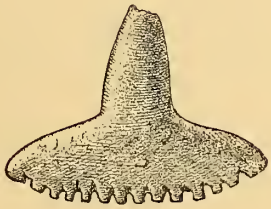
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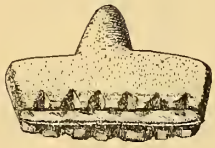
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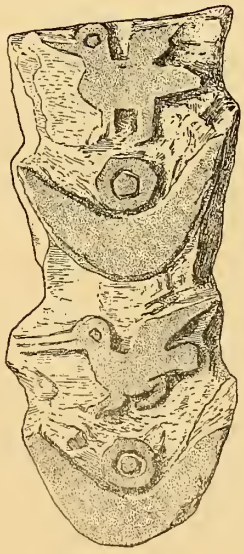
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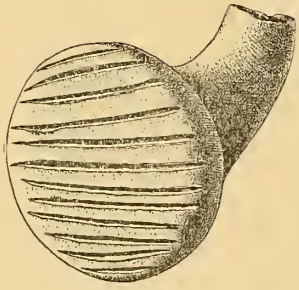
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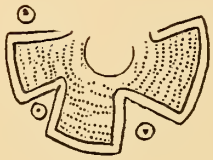


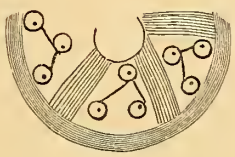
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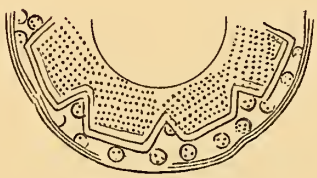
Stamps.


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14

Designs of Geometric Patterns, and Figures on Spindle-Whorls.


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Designs of Birds on Spindle-Whorls.


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Designs of Animals, Fishes and Snake on Spindle-Whorls.

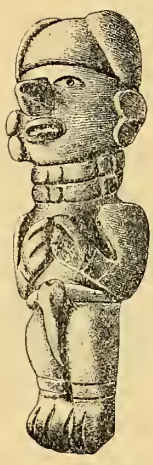

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WHISTLES.



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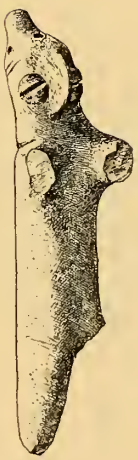
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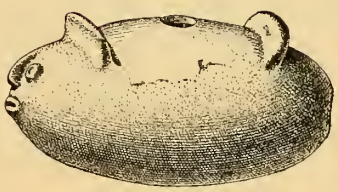
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WHISTLES.



1 2 3

Large Pottery Whistle from Cerro Jaboncillo.

COCKAYNE — BOSTON



1 2 3

Large Pottery Seated Figure from Cerro Jaboncillo.

COCKAYNE — BOSTON



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Pottery Figures on Seats from Cerro Jaboncillo

COCKAYNE—BOSTON



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Pottery Seated Figures from Cerro Jaboncillo.

COCKAYNE—BOSTON





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Pottery Vessels and Figures from Cerro Jaboncillo.

COCKAYNE — BOSTON

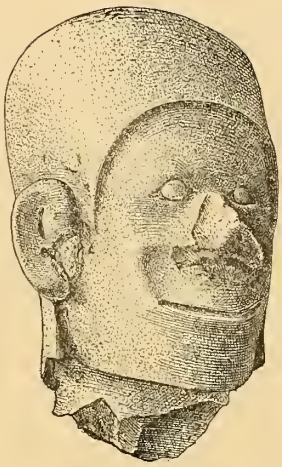


Human Figures, and Human and Animal Figure Urns From Cerro Jaboncillo.

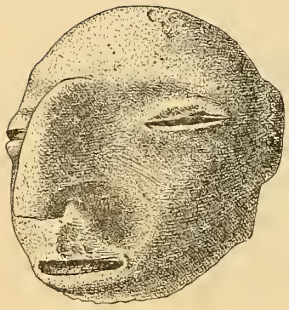
COCKAYNE — GOSTON



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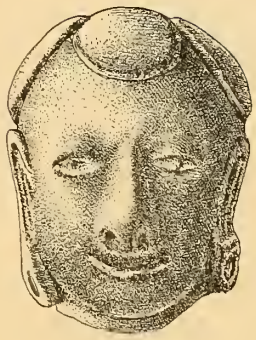


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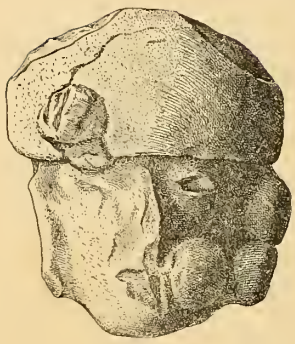
Human Heads.



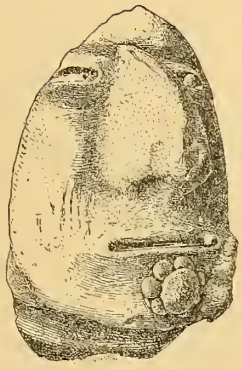
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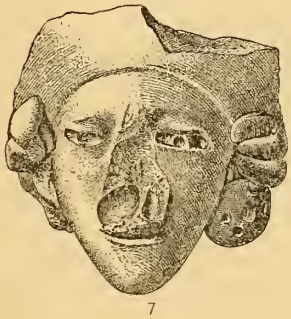
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HUMAN HEADS.


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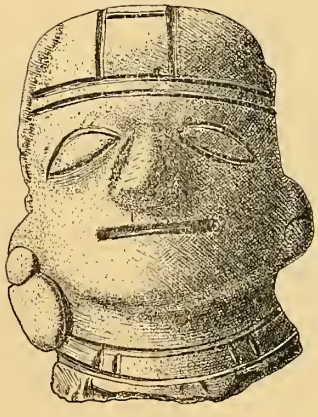

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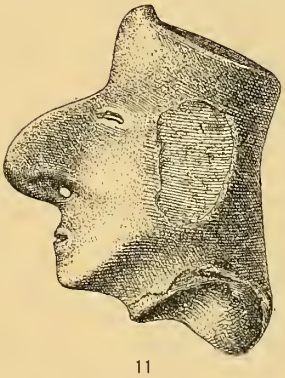

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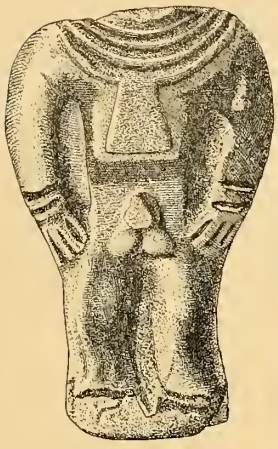

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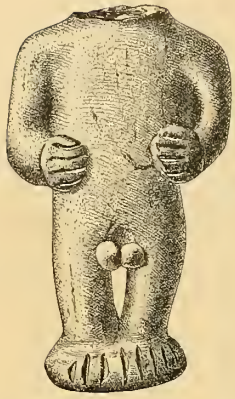
HUMAN HEADS.



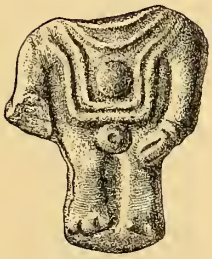
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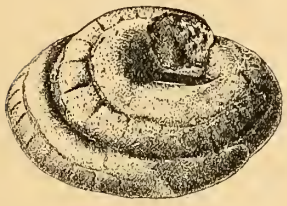


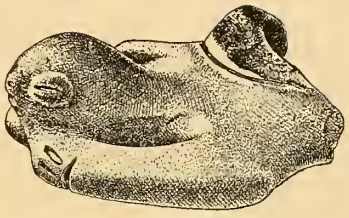
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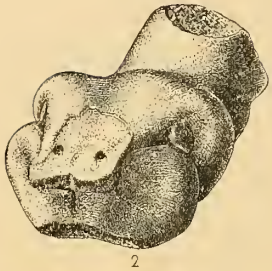
Human Figures.



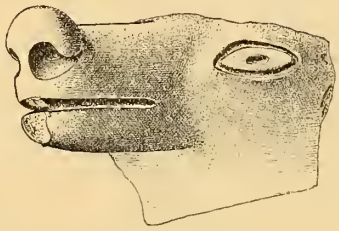
Miscellaneous Figures.


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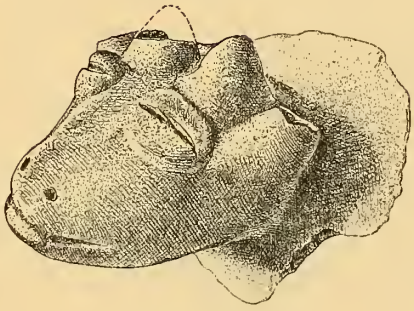

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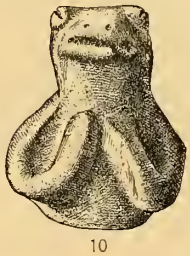

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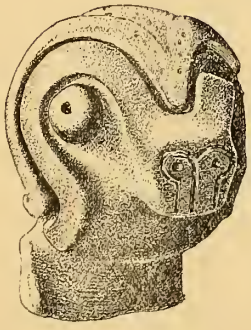

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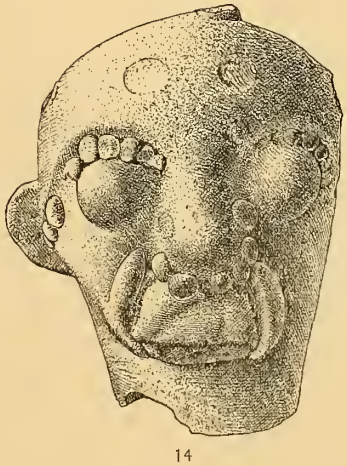

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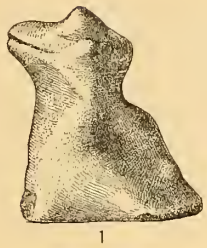

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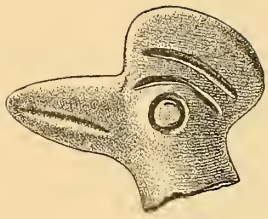

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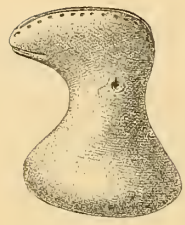

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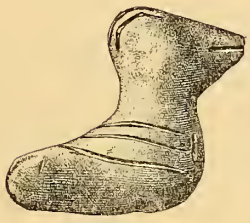

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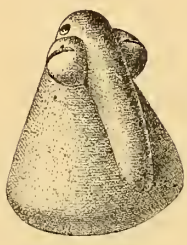
Animal Heads and Figures.


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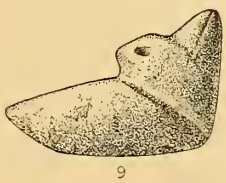

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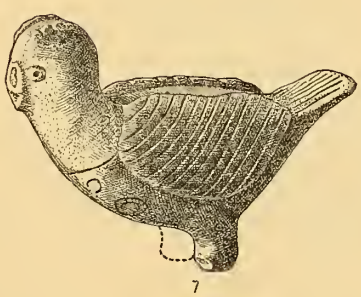

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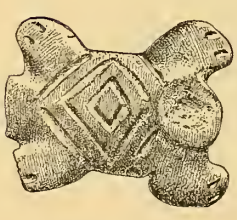

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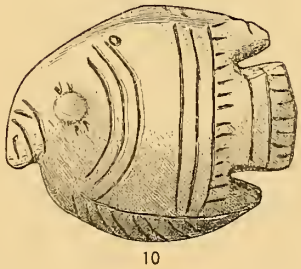

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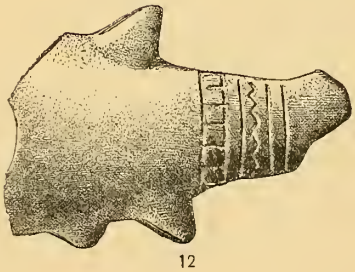

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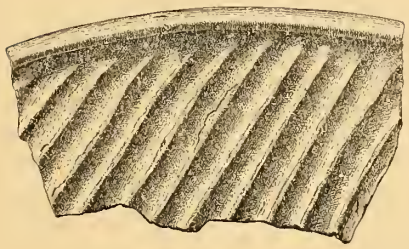

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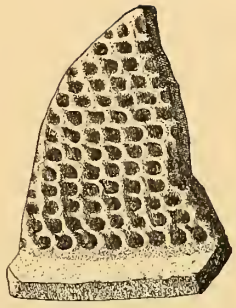

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Birds and Fishes.



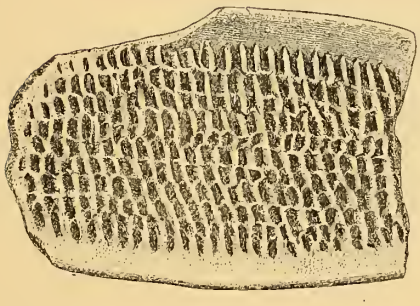
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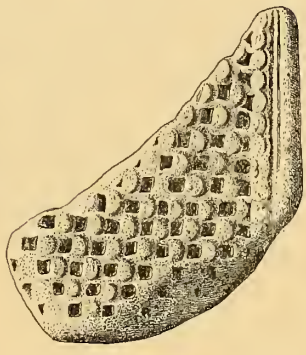
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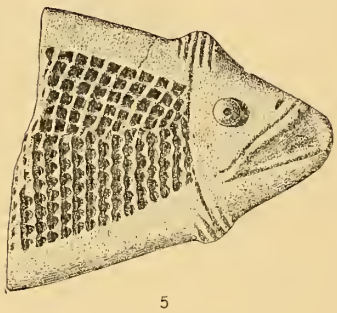
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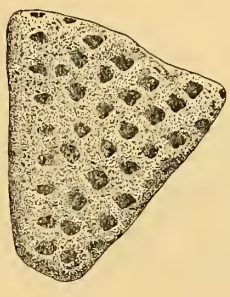
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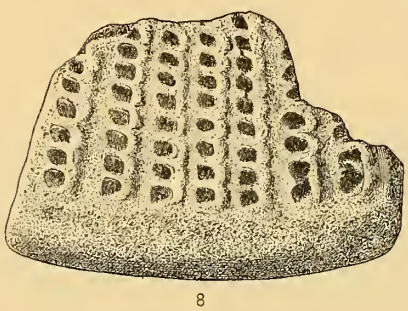
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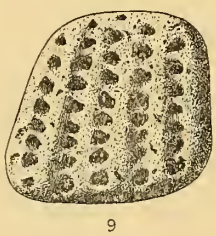
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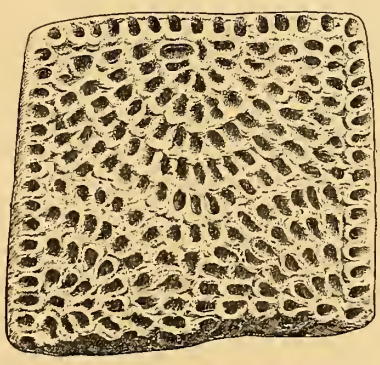
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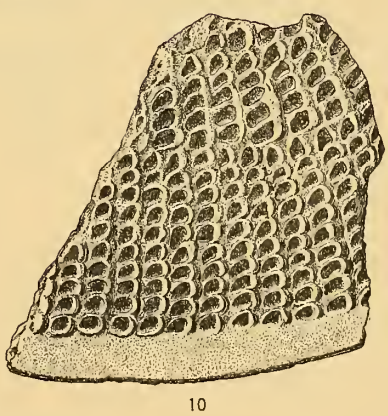
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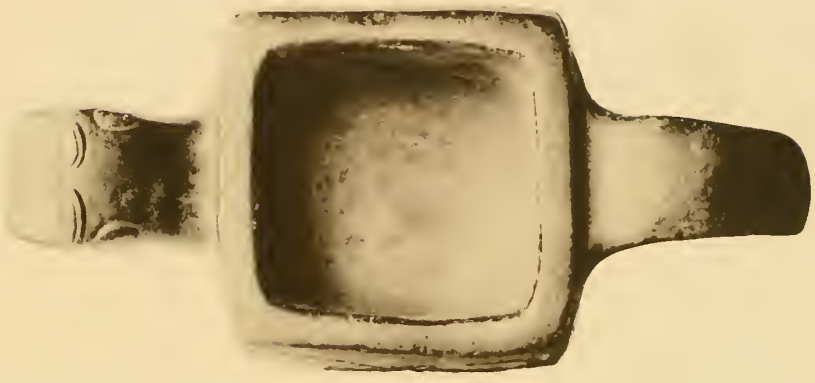


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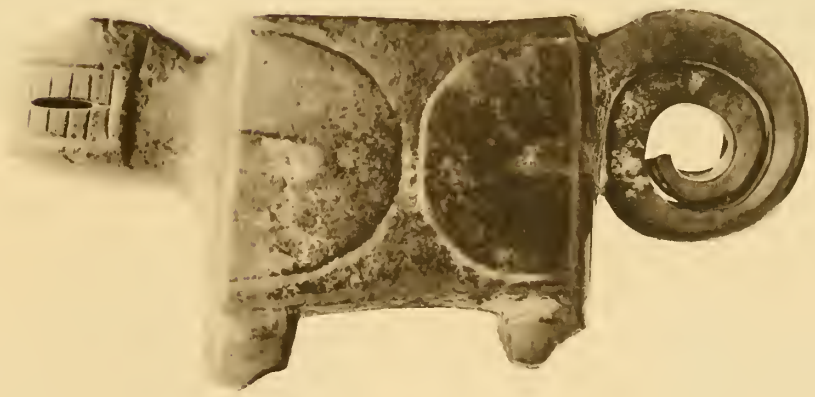


10

GRATERS FROM THE ECUADORIAN COAST.



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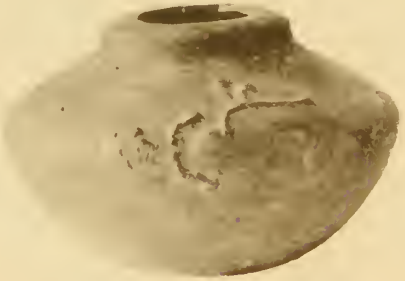
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Stone Puma-Urn from Vicinity of Caraques.

COCKAYNE—BOSTON



1



3



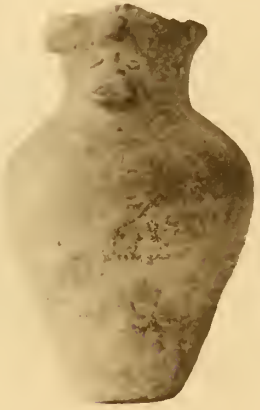
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5

Pottery Vessels from Vicinity of Caraques.

COCKAYNE — BOSTON



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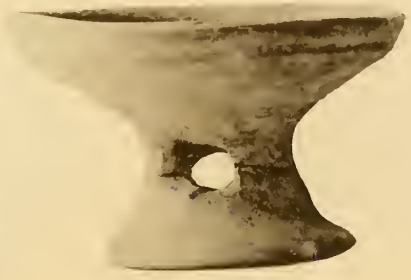
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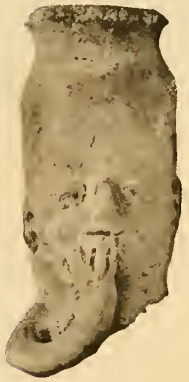
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Pottery Vessels from Vicinity of the Equator.

COCKAYNE — BOSTON



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7

NECKS OF OLLAS, AND HUMAN FIGURE FROM VICINITY OF CARAQUES.

COCKAYNE — BOSTON



1 2 3

Large Pottery Figure from Vicinity of Caraques.





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6

HUMAN FIGURES FROM VICINITY OF CARAQUES.

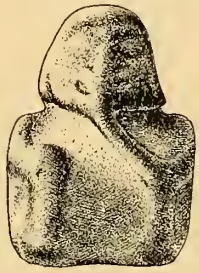
COCKAYNE — BOSTON



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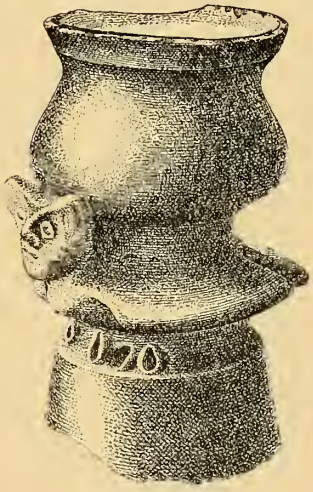
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7

Miscellaneous Pottery Figures from Vicinity of Caraques.



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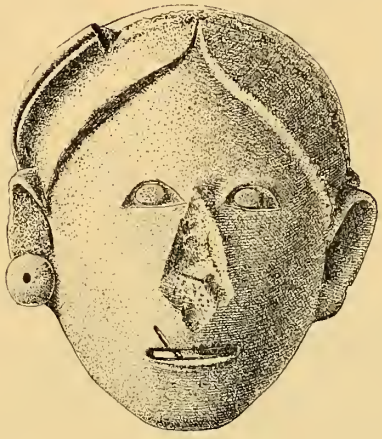
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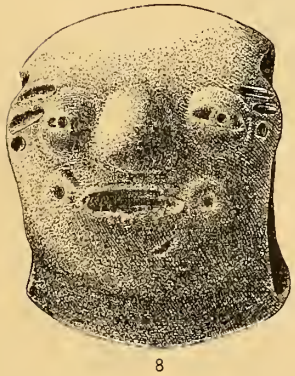
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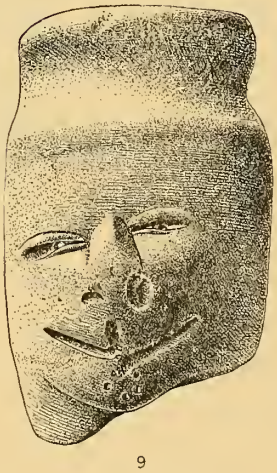
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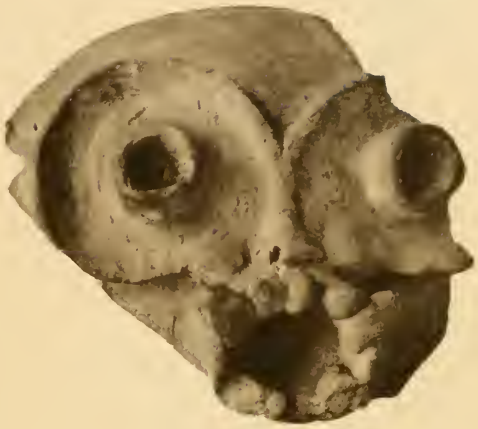


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9

Pottery Heads from Vicinity of Caraques.



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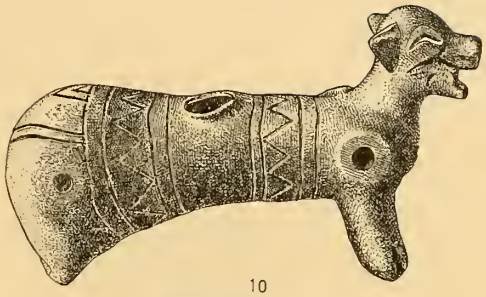


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Pottery Masks from Vicinity of Caraques.

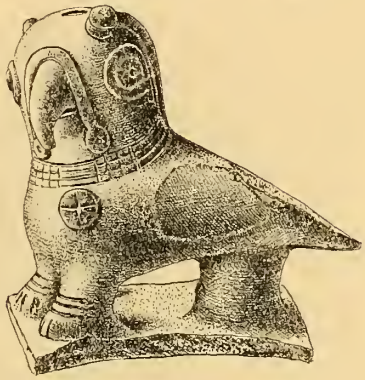
COCKAYNE—BOSTON

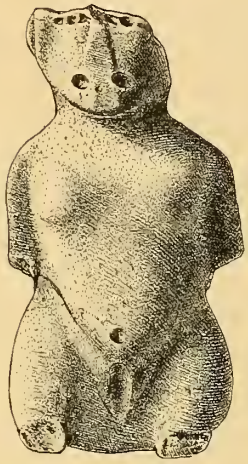

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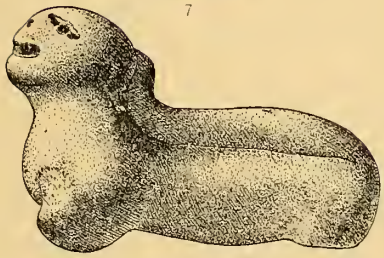

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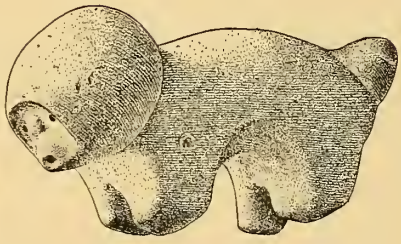

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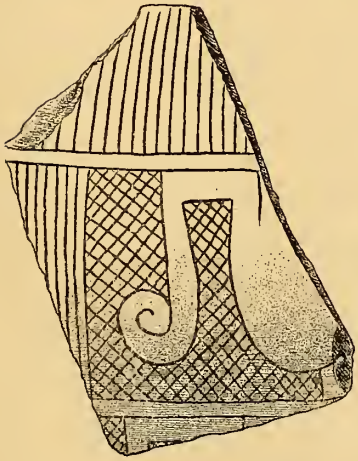

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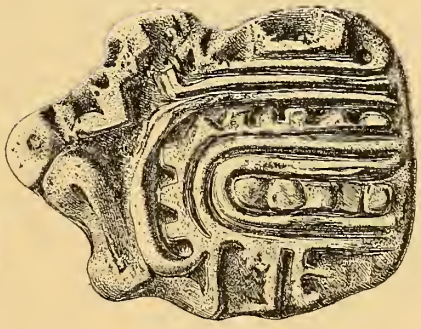

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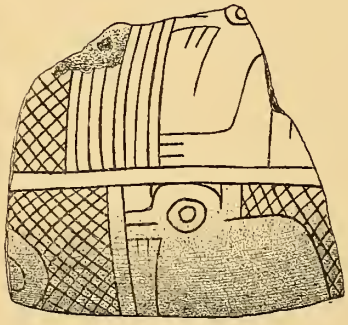

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Miscellaneous Pottery Objects from Vicinity of Caraques.



Human Figure Standing on Seat from Cape Pasado.

COCKAYNE — BOSTON


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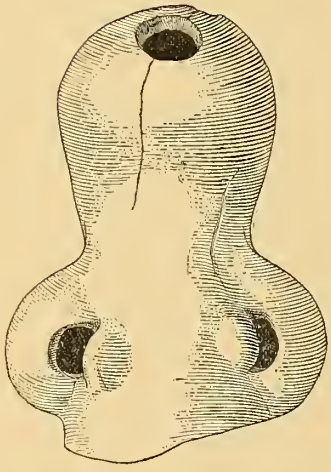

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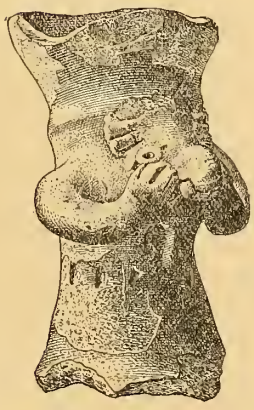

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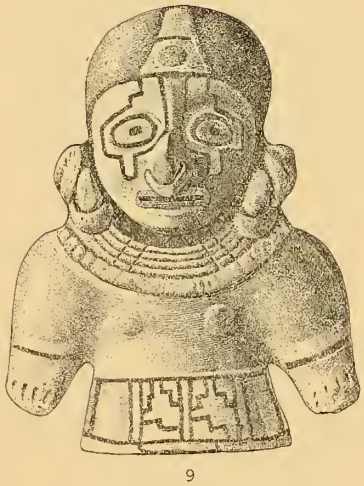

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Pottery Figures and Cup. From Region Caraques to Cojimies.



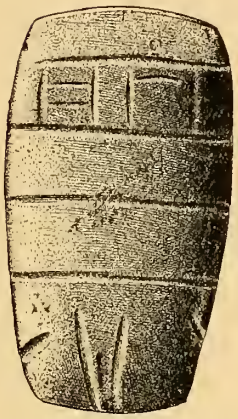
Large Human Figure from La Roma District.

COCKAYNE — BOSTON

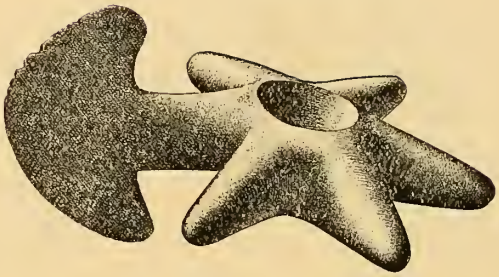


Large Urn from Vicinity of Cape Santa Elena.

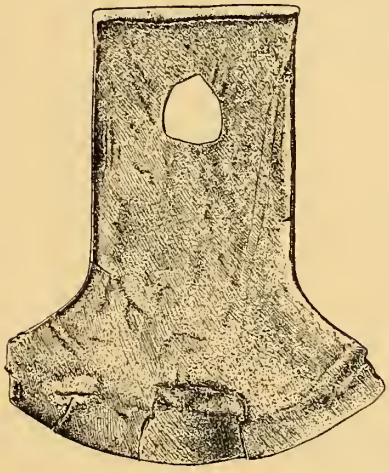
COCKAYNE—BOSTON



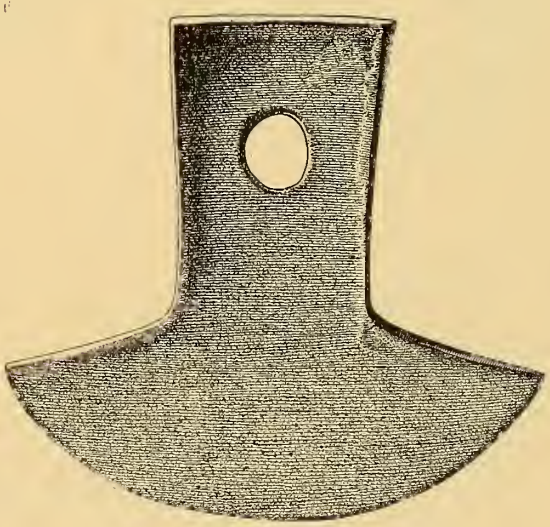
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Copper Weapons, and Stone Idol from Guayas.



Spindle-Whorls, Vessels and Fragments from Guayas.

sterdam Records

/inter and the holidays are at hand,
ry meetings of this board (the city
and three weeks after Christmas.
ed not to summon any one in the

The First Christmas Days at Plymouth

Plymouth, 1620

"The 25th day began to erect the first house for common use to receive them and their goods." — *Gov. Bradford.* "Munday, the 25th day, we went on shore, some to fell tymber, some to saw, some to rive, and some to carry; so no man rested all that day. * * * Munday the 25th being Christmas day, we began to drinke water aboord, but at night the master caused vs to have some Beere."—*Mourt.*

Plymouth, 1621

I shall remember one passage more, rather of mirth than of waight. One day called Christmasday, the Gov^r caled them out to worke. (as was used,) but the most of this new-company excused them selves and said it wente against their consciences to work on that day. So the Gov^r tould them that if they made it a matter of conscience, he 'would spare them till they were better informed So he led-away the rest and left them; but when they came home at noone from their worke, he found them in the streete at play, openly; some pitching the barr and some at stoole-ball, and shuch like sports. So he went to them, and tooke away their implements, and tould them that was against his conscience, that they should play and others worke. If they made the keeping of it matter of devotion, let them kepe their houses, but ther should be no gameing or reveling in the streets. Since which time nothing hath been attempted that way, at least openly. *Gov. Bradford.*

An Early Account of a Virginia Christmas with An Expedition of Capt. John Smith

"The extreme winde, rayne, frost and snow caused us to keepe Christmas among the salvages where we were never more merry, nor fed on more plenty of good Oysters, Fish, Flesh, Wilde fowl and good bread, nor never had better fires in England.

Pastimes in Virgi

When they meet at feats or
like ours heare in England as ther
darbysher Hornepipe a man firs
through them all, hanging all in a
in the midest with a pipe and a ratt
to make a noyes all the rest Gig
and stampinge on ye ground.

They vse beside football play,
doe much play at. The men neue
ours only they never fight nor pull
play with a litle balle lettinge it fa
it with the tope of his foot, and he
winns what they play for.

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